Process Orientation and Information Technology – Customer Engagement at Xerox (UK) Ltd.

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This thesis describes in-depth research that was carried out in 1998 and 1999 into a single organisation: Xerox (UK) Ltd. The research is premised on non-positivist assumptions, and the findings have emerged from the analysis of unstructured-interview and documentary evidence.

Xerox Customer Engagement activity is informed by the "Go To Market" strategy, and "Intelligent Coverage" sales philosophy. The realisation of this philosophy necessitates a sophisticated level of Market Understanding, and the effective integration of the direct channels of Customer Engagement. Sophisticated Market Understanding requires the mapping and coding of the entire UK market at the DMU (Decision Making Unit) level, which in turn enables the creation of tailored coverage prescriptions. Effective Channel Integration is made possible by the organisation of Customer Engagement work according to a single, process defined structure: the Selling Process. Organising by process facilitates the discipline of Task Substitution, which leads logically to creation of Hybrid Selling models. Productive Customer Engagement requires Selling Process specialisation by industry sector, customer segment and product group.

The research shows that Xerox's Market Database (MDB) plays a central role in delivering the Go To Market strategic aims. It is a tool for knowledge based selling, enables productive SFA (Sales Force Automation) and, in sum, is critical to the efficient and effective deployment of Customer Engagement resources. Intelligent Coverage is not possible without the MDB.

Analysis of the case evidence has resulted in the definition of 60 idiographic statements. These statements are about how Xerox organise and manage three direct channels of Customer Engagement: Face to Face, Telebusiness and Ebusiness. Xerox is shown to employ a process-oriented, IT-enabled, holistic approach to Customer Engagement productivity.

The significance of the research is that it represents a detailed (perhaps unequalled) level of rich description of the interplay between IT and a holistic, process-oriented management philosophy.

Key Words: business processes, process management, market database, marketing and sales productivity, sales force automation.

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Note to the Reader: in order to convey a full and rich understanding of the case site, the descriptions contained in this thesis are presented in the language of the research participants. To facilitate the reader's appreciation of the case descriptions a list of Xerox-specific terminology (acronyms, abbreviations) is provided in Appendix I. Appendix I also expands the abbreviations used in the literature review sections of the thesis.

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Chapter 1

Research Summary and Literary Background

1.1 Project Summary

This thesis describes how Xerox (UK) Ltd. (a holistic, process-oriented organisation) organise and manage three direct channels of Customer Engagement: Face-to-Face, Telebusiness and Ebusiness. It illustrates how the company is striving to improve Sales Productivity through the implementation of a Marketing strategy that signals a radical departure from tradition in terms of the role and structure of these channels. Process orientation, a holistic approach to sales productivity, and the effective use of Information Technology (IT) are each shown to be critical in the delivery of that strategy.

The project was sponsored by the Economic and Social Research Council (ESRC), Xerox (UK) Ltd. (Xerox) and Aston University (AU), and was supervised by Dr. Fred Hewitt (Pro Vice Chancellor, AU) and Mr. Shaun Pantling (Director and General Manager, Document Services Group, Xerox). The thesis is structured as follows.

In this Chapter the origins, direction and contribution to knowledge of the research project are described. The project contributes to the field of Business Process Re-engineering/Redesign and Business Process Management (BPR, BPM). At research inception the vast majority of published research in this field considered intra-organisational processes (and the use of IT in those processes) exclusively. That body of literature focused on the techniques and rationale for doing BPR. It provided relatively clear answers to the questions of what BPR *is*, and *why* organisations might choose to become process-oriented. However, there existed a paucity of research concerned with either inter-company process redesign, or how organisations that had become process-oriented worked. No previous research had focused specifically on the Face to Face Selling Process of process-oriented organisations. Little was known about the effective application of IT in or around this process, or how the process itself is used, structured and managed. This research contributes to the understanding of these issues.

Chapter 1 concludes with the definition of seven initial and tentative research questions. The questions relate to different aspects of the Xerox Selling Process, and were formulated in collaboration with both research supervisors. These questions were not posed directly to research participants. Instead, the researcher entered the field with three key 'themes' of interest (distilled from the initial research questions), about which no prior knowledge was assumed. The reasons for adopting this approach are explained in Chapter 2.

Chapter 2 elucidates the methodological approach to the project as a whole. It begins with a discussion of the paradigmatic concept and its significance to the research endeavour. The paradigmatic identity of any research has profound implications for its design, conduct and possible role in the furtherance of understanding. The role of existing literature and theory, conduct of field work (in terms of the ways in which research methods are employed), methods of data analysis, appropriate criteria for judging the quality of research and mode of reporting findings are each contingent in some way with the paradigmatic grounding of a project.

This is non-positivist research, and Chapter 2 explains the rationale underpinning the selection of that paradigm, and not others, for the purposes of this project. Following paradigm selection, the Chapter then describes the methods and tools employed during the field engagement stage of the project. The findings of this research are derived from the in-depth study of one holistic, process-oriented organisation: Xerox (UK) Ltd. The findings have emerged from interview and documentary data collected over a field engagement period of eleven months. This research is based on a single case study, in which exclusively qualitative methods were used.

Chapter 2 concludes with a discussion of the criteria used to judge the quality of this research (including a discussion of the degree to which the research findings might be transferable to other contexts), and a description of the method of data analysis used by the author in constructing the research findings. The research findings are presented in Chapters 3, 4, 5, and 6.

In Chapter 3 the 'Process and Strategic Contexts' of the research are described. Xerox is a holistic, process-oriented organisation, but this research is concerned

with a limited set of the organisation's constituent processes. First among these is the Xerox 'Selling Process', which is a sub-process of the Core 'Market To Collection' (MTC) process. Chapter 3 locates and describes the processes that the research seeks to understand.

At the time of this research Xerox was entering a period of significant change. This change is structural, technological and cultural, and is driven by the Go To Market strategy. That strategy is designed to deliver 'a different kind of Xerox', and implementation of the strategy began in 1999. Chapter 3 provides a description of the key themes of the Go To Market strategy. Taken together, the Process and Strategic contexts form the 'setting' in which the research was conducted.

In Chapter 4 the findings of the research pertaining to the Face to Face channel of Customer Engagement are presented. These findings are, in the main, about how Xerox are approaching the problem of Sales Productivity, and how the work of Face to Face salespeople is changing following the implementation of the Go To Market strategy. The Selling Process is, naturally, central to the work of Face to Face salespeople; but the way in which the process is performed is changing dramatically. Face to Face productivity is no longer treated in isolation, and is found to be dependent on the effective use of the Tele- and Ebusiness channels of Customer Engagement. At Xerox, overall Sales Productivity improvement requires a holistic management of all channels of Customer Engagement. The Selling Process represents the enabling structure through which the effective and necessary integration of Customer Engagement channels is achieved.

Xerox's use of the Telebusiness and Ebusiness channels of Customer Engagement is the subject of Chapter 5. The Go To Market strategy implies a greater and growing role for both channels, but, of the two, Telebusiness was comparatively further developed, and more intensively used. Although Ebusiness is found to be at an 'embryonic' stage of development, both channels play an essential role in the delivery of the Go To Market strategic objectives.

Chapter 6 describes how Xerox use IT in each of the Customer Engagement channels studied. Xerox's Customer Engagement operations are supported by a central Market Database (MDB). This MDB is considered to be in some ways

advanced, and in others currently inadequate. It is intensively used and enables the productive performance of Face to Face and Telebusiness work, the integration of Customer Engagement channels, and the effective targeting of Customer Engagement resources.

During this research Xerox embarked on a new Sales Force Automation (SFA) initiative. This initiative involves the mobilisation of the MDB resource, and implies changes to the ways in which the Selling Process is performed. Chapter 6 explains how and why Xerox are initiating SFA – the practices it will enable, the changes it requires, and the benefits that are expected to accrue.

In the final Chapter of this thesis the findings of the research are collated and presented together. This project has resulted in the definition of 60 working hypotheses, and these working hypotheses are idiographic statements (they are temporally and contextually bound) about how Xerox was in 1999. Together they illustrate the important elements of Xerox's approach to customer engagement – they describe the 'lessons to be learned' from this study of the Xerox case. Where possible, the working hypotheses are linked to the original research questions presented in Chapter 1. This link is not possible in all cases because the ultimate scope of the research extends beyond that originally envisaged. In this way, the relationship between research origins and conclusions is preserved.

Chapter 7 also redefines the contribution to knowledge that this thesis makes. This contribution is distilled through, and facilitated by, a comparison of this and previous research. This research answers a number of questions, and raises many more. The Chapter, and thesis, concludes by suggesting a number of possible directions for future investigation.

As stated above, the present Chapter explains the origins, direction and literary background of the project. In the following section, the origins of the research are described.

1.2 Research Origins

The research described in this thesis began in the Summer of 1996, when the author was selected by interview to fulfil a project brief entitled: '*The Use of*

Information Technology in Marketing and Sales'. The project was third in an ongoing series (initiated and supervised by Dr. Fred Hewitt of Aston University) examining various aspects of Information Technology (IT) use in process-oriented companies. Whereas previous projects (in progress as this research began) were focused on the use of IT in intra-company (internal) processes, this project was concerned with external, inter-company processes. Specifically, the initial research objective was to study the use of IT within the sales functions of process-oriented companies. The project brief proposed that customer engagement processes would be the focal study area.

During early consultations with the research supervisor, the author was advised that an increasing number of companies were beginning to pursue IT mediated Business Process Reengineering (BPR) activities. BPR was considered to be a necessary and logical antecedent to becoming 'process-oriented'. Therefore, the companies of interest in this project were those that were either engaged in BPR activity, or were considered already to be process-oriented. The author understood that whilst the former group was expanding rapidly, exemplars of the latter group were extremely few in number.

It was envisaged at project inception that the researcher would investigate the focal study area using a two-stage research strategy. First a questionnaire would be employed in order to establish the degree to which companies were addressing Customer Engagement processes as part of their BPR initiatives. Second, a small number of respondent companies would be further investigated using interviews, based on Soft Systems Methodology (SSM, Checkland, 1985), to establish actual and desired IT frameworks.

From the outset it was clear that the initial research brief was no 'blue-print' to the project. Shifts in the precise focus of the research and the study methodology were expected; and shifts in both did indeed occur over time. However, at project inception the researcher was faced with three questions relating to the problem definition contained in the research brief:

1. *What is currently known about BPR?*
2. *How are BPR and IT related?*
3. *What is known about IT mediated BPR in sales operations?*

Answers to these questions were sought through an examination of the existing BPR literature. A firm understanding of current knowledge in the BPR field was required, and that pursuit would lead to a clarification of where this research 'fits in' with extant knowledge, and how it contributes to the field's development. The results of this literature review are presented below.

1.3 What is Business Process Re-engineering?

The terms 'Business Process Re-engineering' and 'Business Process Redesign' (BPR) entered management vernacular in 1990 with the publication of two seminal articles: *Re-engineering work: Don't Automate, Obliterate* (Hammer, 1990) and *The New Industrial Engineering: Information Technology and Business Process Redesign* (Davenport & Short, 1990). The standard and frequently cited definition of BPR is that offered by Hammer & Champy (1993):

"Reengineering is the fundamental rethinking and radical redesign of business processes to achieve dramatic improvements in critical, contemporary measures of performance, such as cost, quality, service and speed."

Following conception, BPR received immediate and enthusiastic attention on a scale seldom matched in the history of management concepts (Edwards & Peppard, 1994). One literature survey covering the years 1991 to 1993 demonstrated a 98.8% positive regard for the concept (Tinaiker et al, 1995), and in a survey of several hundred client companies, Price Waterhouse (now Price Waterhouse Coopers) found that in 1993 around 69% undertook some form of BPR (Price Waterhouse, 1994, in Willcocks, 1995).

It is interesting to understand why BPR enjoyed such early and popular appeal. One suggestion is that practitioners and academics empathised with Hammer & Champy's (1993: 1) dramatic prognosis, that the alternative to BPR implementation was "...for corporate America to close its doors and go out of business." These authors, and many others, cite changing environmental pressures as a key factor influencing the decision to attempt BPR. The modern business environment exhibits very different characteristics than the 'traditional' environment and, as a result, 'traditional' ways of organising work are no longer appropriate to competing in the modern world. The modern business environment

is global, increasingly uncertain and competitive, and is changing rapidly. The nature of the modern environment is encapsulated in the following (Edwards & Peppard, 1994: pp257-258):

"The success of European manufacturing and service organisations depends on their ability to satisfy their customer's requirements. However, the market place within which they operate is substantially different from the less severe competitive market conditions of the past. The 1990s are characterised by the globalisation of markets, intensification of competition, acceleration of product life cycles, disinflation and growing complexity with suppliers, buyers, government, etc. The challenge from Asia and the Pacific Rim countries has become particularly intense, especially in manufacturing."

The principles of organisation that proved successful in the "less severe competitive market conditions of the past" are no longer germane. The authors of these principles are Adam Smith and Frederick Taylor. The former is credited (and now dis-credited by some) with popularising the logic of organising for economies of scale. Smith's ideas flourished, and were operationalised to the extent that, in virtually all modern business: "specialisation, deskilling, functional division and hierarchies rule OK! (Grint, 1994, 180)." Whereas in the past these principles delivered success, today they are associated with failure. Their propagation:

"...has been fuelled by (virtually) unremitting demand to the extent that producers have dominated the market – until now. ...The problem, as the reengineers see it, is that the functional divisions that once proved so successful actually prevent organisations responding adequately to the changed conditions. The result has been a gradual decline in American competitiveness and a sharp increase in the market share taken by consumer-oriented systems like those developed by the Japanese and associated Asian 'Tigers' (ibid: pp180-181)."

Taylorism, and the canons of Scientific Management, also render the organisation ill-equipped to compete in the modern environment. BPR was presented originally as the antithesis (or antidote) to Taylorism. Taylor was himself a revolutionary, but his revolution belongs to a bygone age:

"At the turn of the century, Frederick Taylor revolutionised the workplace with his ideas on work organisation, task decomposition, and job measurement. Taylor's basic aim was to increase organisational productivity by applying to human labour the same engineering principles that had proven so successful in solving the technical problems in the work environment. The same approaches that had transformed mechanical activity could also be used to structure jobs performed by people... Taylor could focus on workplace rationalisation and individual task efficiency because he confronted a largely stable business environment; today's

corporations do not have the luxury of such stability. (Davenport & Short, 1990: pp11-12)."

The necessity of a new approach seemed clear. It appears that early attempts to 'sell' BPR were facilitated by a recognition on the part of US companies that something had to change. As one of BPR's progenitors explains:

"Corporate America was in recession. It wasn't hard to convince companies that they had to change in some fundamental way. Competition was stiffer, customers were becoming ornery, and markets were changing at a breathless pace. Old ways of doing business clearly wouldn't cut it any more (Champy, 1998: 26)."

Thus, the great interest in BPR can be partly explained in terms of the 'resonance' early accounts had with the experiences of management. This is the 'externalist' account of BPR's success (Grint, 1994). The 'internalist' account suggests that BPR is successful because of its novelty and perceived inherent worth. However, BPR's constituent elements have been shown to be contradictory (Jones, 1995), and less than original (Grint, 1994). The innovative element of BPR is often cited as its amalgamation of a number of previously disparate ideas into an integrated, holistic package (Peppard & Preece, 1995; Sellers, 1994). Holtham (1994: 62) refers to this integration as 'encapsulation', and suggests that BPR's early success is "essentially a success of sales and marketing of existing managerial ideas, rather than contributing new ideas." It seems that early enthusiasm for BPR can be explained as a timely confluence of ideas and circumstance. BPR was perceived as a set of ideas that were right for the predicaments of the day. As Earl (1996: 56) concludes neatly "It came at the right time."

Whatever the reasons for BPR's enthusiastic reception, as this research began it had become a widely debated, and continuously studied, phenomenon. BPR definitions, perceptions and methods varied (Hewitt & Yeon, 1996), and 1995 saw the launch of the *Journal of Business Change and Re-engineering* – later *Journal of Business Process Management.* In reviewing the early BPR literature, it became apparent that BPR was a concept concerned essentially with organisational change; and in particular, change in organisational structure.

1.4 BPR & Organisation Structure

Davenport & Short (1990: 11) introduced BPR as one of two new tools that were

"transforming organisations to the degree that Taylorism once did." BPR was summarised as "the analysis and design of work flows and processes within and between organisations" (ibid: 11). The other new tool was *Information Technology*, which refers to "the capabilities offered by computers, software applications, and telecommunications" (ibid: 11). The latter's role in BPR is described in Section 1.8. Davenport and Short's BPR thesis was that (ibid: 12):

"Business activities should be viewed as more than a collection of individual or even functional tasks; they should be broken down into processes that can be designed for maximum effectiveness, in both manufacturing and service environments... In short, rather than maximising the performance of particular individuals or business functions, companies must maximise interdependent activities within and across the entire organisation."

The central, and distinctive element of BPR is 'process', BPR requires a substitution of 'process' for 'function' as the primary construct of organisational structure. BPR:

"...offers the promise of dramatic improvements in performance through streamlining the end-to-end processes by which the business creates and delivers value for its customers... we should be concentrating on processes rather than functions as the central focus for the design and management of business activity (Talwar, 1994: pp40-41)."

Functional organisation is a direct consequence of the 'division of labour' argument first advocated by Adam Smith (Wealth of Nations, 1776). Smith suggested that dramatic efficiencies of scale are possible through the reduction of work into its smallest possible unit. The resultant functional divisions of the work process are then reflected in the functional divisions of the firm (Grint, 1994). As Grint (1994: 183) states, organising by function is seen as problematic because it leads to:

"...an increasingly labyrinthine gap between customer and producer... The reengineering solution... is to switch from functions to processes: to move from producer-oriented specialisation to customer-oriented integration. Because the product or service sold is ultimately the result of an integrated process, not disintegrated functions, reengineering stresses the holistic aspects of work at the expense of the atomistic aspects...

The traditional mode of organising has led to a situation in which cross-functional communication and co-ordination is problematic, and in which a 'functional stovepipe' mentality dominates. This kind of functionally oriented organisation can

be colourfully summarised as one "with its face toward the CEO and its ass toward the customer" (GE CEO Jack Welch, cited in Ghoshal & Bartlett, 1995). BPR – as the route to the creation a process-oriented, rather than functionally oriented organisation – is seen as a remedy to this predicament. BPR provides a possible means to the creation of an externally-oriented, rather than an internally-oriented organisational perspective. As Talwar (1994: 42) surmises:

"In practice, while the customer is interested in the end-to-end or horizontal process, the organisation itself is often focused inwardly and on the vertical chains of command through which it manages its departments... to service the customer, work may have to flow across departmental divides. Each hand-off to another department introduces another potential source of delay in the process because the recipient department may be working to a different set of priorities. In such circumstances it is frequently the case that doing what is right for the customer is not necessarily what will satisfy your manager."

Thus the horizontal, end-to-end process becomes the basic unit of organisational structure. The nature of these processes is the subject of the Sections 1.6 and 1.7 below. Although process focus is often seen as the defining characteristic of BPR, interest in business processes is in itself nothing new. Peppard and Preece (1995) trace the evolution of process thought back to writings on early functionalist sociology in the late 19th century, and more recently process control was emphasised in the quality movement (e.g., Juran, 1964). However, previous process based philosophies have tended to advocate an incremental, rather than a radical, approach to process improvement. BPR is distinguished from earlier approaches in the degree of transformational scope it implies. Table 1.1 demonstrates the differences in process-scope between BPR and Continual Process Improvement (adapted from Earl & Khan, 1994).

Table 1.1 – *Continuous Process Improvement and BPR Scope* (Earl & Kahn, 1994)

	Continuous Process Improvement	**Business Process Reengineering**
Change	Incremental	Quantum Leap
Focus	Current practice	Start again
Frequency	Continuous	One shot
Scope	Narrow, within function	Broad, cross-functional
Participation	Bottom up	Top down
Risk & Rewards	Low to moderate	High
Type of Change	Work design	Structure, culture roles
Role of IT	Incidental	Key enabler

The shift from function to process orientation reflects a wider shift in the way that organisations are conceived. In short, this shift is from a mechanistic view or organisation to a systemic view. A preoccupation with work division and functional optimisation reflects a mechanistic view of organisation. The pathologies suffered by 'traditional' organisations – the pathologies BPR seeks to remedy – are perhaps symptomatic of the misapplication of the machine metaphor to the design of organisation.

Systems Thinking is identified by Holtham (1994) as one of BPR's two unrecognised debts, the other being Juran's (1964) *Breakthrough Management* (historical antecedents are neglected almost entirely by Hammer & Champy (1993), but much less-so by Davenport (1993)). As this research began, the possibility of linking the principles of BPR to the wider Systems Thinking framework remained relatively unexplored. Nonetheless, there appeared to be a close relationship between BPR and Systems Thinking, and the first paper to explore BPR from within a Systems Thinking framework (van Ackere et al, 1993) suggested that the latter could be of great import. Van Ackere et al (1993: 415) state that BPR involves:

- "Understanding and evaluating the present process thoroughly;
- Questioning every aspect of the present process: is it necessary? Is it done in the most efficient way by the most suitable people?
- Using all these inputs, as well as brainstorming, to come up with a new process."

They are also of the view that "BPR has its roots in systems engineering" and "it is therefore not surprising that the Systems Thinking approach is quite appropriate in a BPR context" (ibid: 416). Both BPR and Systems Thinking (ibid: 413)...

"...encourage managers to take off their functional blinkers and step back to see the co-ordinating mechanisms necessary to satisfy customers. In order to re-engineer or redesign an area of business, managers must work as a team, share knowledge, map out key processes, link them across functional boundaries and then see where there is room for improvement."

Central to the Systems Thinking tradition is a mind-shift or 'metanoia' on the part of the observer (Senge, 1990). A shift from analysis to synthesis, from reductionism to holism. Likewise BPR requires a focus on the process, rather than

the task, as the basic unit of analysis. Organisations must begin to think inductively (and outwards – towards the customer), rather than deductively (and inwards – towards the function) (Hammer & Champy, 1993).

The distinction between machine-age thinking and systems-age thinking is evidenced through a consideration of how the two traditions approach problems. Ackoff (1981: 16), arguing that the 'systems age' has arrived, shows that both approaches follow three steps in their pursuit of explanations of phenomena:

Machine-Age thinking:

1) *decomposition of that which is to be explained,*
2) *explanation of the behaviour or properties of the parts taken separately,*
3) *aggregating these explanations into an explanation of the whole.*

Systems-Age Thinking:

1) *identify a containing whole (system) of which the part to be explained is a part,*
2) *explain the behaviour or properties of the containing whole,*
3) *then explain the behaviour or properties of the thing to be explained in terms of its role(s) or function(s) within its containing whole.*

The System of Systems Methodologies developed by Jackson and Keys (1984) provides a powerful way of categorising problem situations and selecting appropriate Systems Thinking tools. Table 1.2 shows this system, and is adapted from Burgess's (1995) similar representation. The table also serves as an indicator as to the 'state of play' in the Systems Thinking field as this research began.

The horizontal dimension shows an increasing divergence of values and interests between those involved in the organisation. As Jackson (1995: 26) explains:

"....people can be in a unitary relationship if they share values and interests; they can be in a pluralist relationship if their values and interests diverge but they share enough in common to make it worthwhile their remaining members of the coalition that makes up the organisation; and they can be in a conflictual or coercive relationships if their interests diverge irreconcilably and power comes to bear so that some group or groups gets its own way at the expense of those who are coerced."

The difference between 'simple' and 'complex' systems is explained by Jackson and Keys (1984: 475) as follows:

"A simple system will be perceived to consist of a small number of elements, and the interactions among the elements will be few, or at least regular. A complex system will, on the other hand, be seen as being composed of a large number of elements, and these will be highly interrelated."

Burgess (1995) locates the majority of BPR accounts within the unitary part of the matrix, with variants in both the unitary-simple and unitary-complex cells. The unitary dimension fits with the top-down approach which assumes compliance with management's world view. Indeed it is difficult to imagine the radical organisational change that BPR implies occurring without the full commitment of senior executives (Hall et al, 1993).

Table 1.2 – *The Systems of Systems Methodologies*

	Participant Relationship		
	Unitary	*Pluralist*	*Coercive*
Situation Complexity			
Simple	Hard Systems Approach e.g. structure systems analysis and design	Soft Systems Approach e.g. strategic assumption surfacing and testing	Emancipatory Systems Thinking
Complex	Organisations as Systems e.g. socio-technical approach Organisational Cybernetics, e.g. Viable System Model	Soft Systems Approach e.g. Soft Systems Methodology	Emancipatory Systems Thinking

The reorganisation of the entire business along process lines leads to creation of the process-oriented, or horizontal corporation (Byrne, 1993). Business processes serve to organise a number of related tasks into a coherent structure for action (Davenport, 1993). The challenge of BPR implementation is not to optimise the performance of each function or department in the organisation, but to optimise

the performance of each activity comprising the total process *as well* as the relationship between them. As Davenport and Short (1990) noted in one case study, each department (sales, credit checking, shipping and so on) felt that it had optimised its own performance, but in fact the whole process was quite lengthy and unwieldy. The management of the process orientation organisation may be facilitated through a recognition of the Systems Thinking principles that:

1. *'the performance of a system* (or process, or organisation) *depends more on how its parts interact than on how they act independently of each other'*, and

2. *'If each part of a system* (or process), *considered separately, is made to operate as efficiently as possible, the system as a whole will* not *operate as effectively as possible'* (Ackoff, 198: 18).

In the process-oriented enterprise (created through BPR activity), optimisation of the process rather than the task is management's focus; the process is the unit of analysis. Systems-Age analysis, in contrast to Machine-Age analysis, seems well suited to this change in emphasis. It seems that one of the biggest challenges posed by BPR is the promotion of a different way of thinking about work. As one leader of a process-oriented organisation states "Our goal is to get everyone focused on the business as a system in which the functions are seamless" (DuPont's Terry Ennis, cited in Byrne, 1993: 47). BPR implies and requires a significant change in organisational culture, and this element of BPR is examined in Section 1.5 below.

It seems clear enough that BPR and process thought are notions borne of the Systems Age, and are best understood when recognised as such (van Ackere et al, 1993, Jackson, 1995, Ho, 1996). Still, as this research began, mechanistic accounts of BPR were far more prevalent that those rooted in the Systems Thinking paradigm. Perhaps this is because the majority of BPR literature emanates from the USA, and, as Holtham argues (1994), differences exist between the American and European approaches to management. According to Holtham (1994: 73), the European approach to BPR is more likely to take account of "the humanistic and holistic stream in European thought, in contrast to the more mechanistic and fragmented US approach." The Systems Thinking based

approach to BPR and BPM seems worthy of further pursuit. In Earl's view (1996: 57, 64, 65), and it is a view which this author shares, the process-oriented approach to organisation *is* a Systems Thinking approach to organisation:

"The 'functional stovepipe' legacy was seen to impede co-ordination, teamwork, interdependence, and removal of unnecessary buffers and slack resources. Horizontal or lateral views of organisation emerged... The *systems* view of organisation is demonstrated by process. Indeed, the interdependent, interactive, boundary-crossing, superordinate goal conceptualisation of process is essentially a systems model... Once the systems view of process is promoted other ideas seem to fit in. Thus teamwork, especially across boundaries, is incorporated. Roles, which stress contribution and interrelationships, displace jobs. Case management and liaison roles are created. And it is the need to, and challenge of, creating responsibilities around activity systems rather than functions or responsibility centres that leads to the call for process owners, process sponsors, and process measures. Above all, perhaps, the notion of process (or system) optimisation is encouraged in that process is a way of promoting the higher goal which challenges local optimisation at functional, departmental, divisional levels because this becomes sub-optimal at the process (or higher system) level. We hear of functional performance or task execution which are best of class, but when these optimised units have to work together, the overall result in customer service, product to market time, or whatever is uncompetitive."

1.5 BPR and Culture

BPR activity is, in the first instance, about organisational change. It requires the creation and management of far reaching and multi-dimensional change in the way organisations work. Above all, perhaps, it implies a change in the philosophy of organisation in use: from a mechanistic, to a holistic, systemic philosophy. It involves not only changing the way we do things, but also the way we think about things - BPR implies a paradigm shift on the part of the organisation (Preece & Peppard, 1993). BPR involves a change in organisational structure – from a functionally oriented structure to a process-oriented structure – but also demands a different kind of behaviour from employees (ibid.). BPR induced change includes both structural and cultural challenges. One contemporary definition recognises explicitly the culture change element of BPR. In that definition, BPR is:

"A process-focused culture change initiative aimed at simultaneously improving Customer Satisfaction, Competitiveness and Profitability" (Hewitt & Yeon, 1995).

The cultural barriers to successful BPR are recognised in the literature, and must be overcome, but are rarely dealt with adequately. The problem can be framed as follows:

"BPR is not just about changing what already exists, but about creating what doesn't exist too. In designing new processes, innovative thinking is required, which begs the question – how does one get out of the current mind-set and culture to be able to do that?" (Shah et al, 1994: 7).

And:

"There is also an issue related to the style and personalities of the work-force generally. It is one thing to create a vision of a new, process-led, flexible and empowered workforce, but many of the existing workforce may be unhappy with such a vision. They may well prefer functionally-based, hierarchical, stable environments... For those who have grown up in organisations dominated by structure, it is a huge psychological leap to move to a process orientation" (Holtham, 1994: 69&72).

The problematic 'functional stovepipes' and 'fiefdoms' were in many cases created by those who will be expected to abandon them in the name of BPR. BPR seeks to alter problematic mind-sets as well as problematic structures, and this is no simple task. In Talwar's (1994: 42) view:

"...the more closely we look at re-engineering, the more it becomes apparent that sustainable performance gains are unlikely to be brought about simply by redesigning the process and telling people they are empowered. In each organisation the processes were designed by people, often in managerial positions, with a particular perspective or 'mindset' on how work should be done. It is that mindset that led them to design processes with the premise that people could not be trusted, to divide tasks across departmental boundaries, to introduce controls and inspections and to limit the flow of information to those on the front line."

The failure rates cited for BPR implementation failure are typically in the region of 50 to 70% (e.g., Hammer, cited in Moad, 1993; Hammer & Champy, 1993). Evidence exists to suggest that the dominant BPR 'paradigm' contributes to the regular incidence of failure. Although there exists resonance between the systemic and process views of organisation, the form of process thought advocated by the earlier proponents of BPR (e.g. Hammer, 1990) is compatible with the mechanistic view of the organisation. As such, approaches to the management of the change accompanying BPR implementation have tended to neglect the social aspects of organisation. There has in the past been:

"...a tendency of managers and reengineering teams to underestimate the actions required to transform the way employees behave and work with one another. They assume that simply changing their organisational structures from functional units into process-complete departments will cause people to shed their functional mind-sets and will forge them instantly into a team intent on achieving common goals" (Majchrzak & Wang, 1996: 93).

However, it has been known for some time that people are likely to be the greatest barrier to the successful implementation of a new process design (Dickson et al, 1994, CSC Index, 1994), and that people may not resist change, but do resist being changed (Sellers, 1994). In the implementation of radical change, the 'softer' issues of change management have been overlooked too often. This is not a problem unique to BPR, (all significant organisational change necessarily involves social and political elements) but in the original BPR literature, the complex, human aspects of implementation were of secondary importance. It seems that the 'soft' elements of BPR were obscured (or contradicted) by the powerful, radical rhetoric employed in its early promotion. As Willcocks and Smith (1995: pp282-283) see it:

"Hammer and Champy in fact promote a 'hard' approach to managing the complex, 'softer' issues necessarily inherent in BPR activities. It is not that the softer issues are ignored. However there is a violence in the approach – 'On this journey we... shoot the dissenters' (Mike Hammer, quoted in *Forbes* magazine, Summer, 1993: 71) – that can be dysfunctional. Moreover, as Strassman (1993) points out, this violence derives from an essentially mechanistic, almost 17th century view of how organisations function and can be changed: if the clock is broken, replace it with a new one. In this respect the use of the word 'reengineering' is not accidental, but symptomatic of a world view that rides over a number of concepts commonly associated with BPR such as 'empowerment', 'teamwork', 'participation', and long term commitment, and the complexities inherent in managing continuity and change."

BPR failure is regularly put down to the mismanagement of human, social and political issues in the change process (e.g. Moad, 1993). Willcocks & Smith (1995: 280) found that BPR initiatives raise political issues that must be managed if implementers hope to avoid project failure:

"One major conclusion is that politics breed in times of BPR, and unless the political dimensions are managed explicitly, what BPR activities produce will continue to disappoint many stakeholder expectations and objectives, not least those of senior management."

BPR is often seen as merely an exercise in structural change – where structure comprises a constellation of processes, rather than functions or divisions. But in the last, the success of BPR requires significant changes in human behaviour also. In 1995 Hammer and Champy (cited in Poh & Chew, 1995: 136) defined BPR as:

"...the fundamental rethinking and radical redesign of an entire business system - business processes, job definitions, organisational structures, management and measurement systems, values and beliefs - to achieve dramatic improvements in critical measures of performance (cost, quality, capital, service, speed)."

In contrast to their original definition, the above makes explicit reference to the 'softer' aspects of organisation and change. Hammer seems to recognise now that an entirely mechanistic view of organisation and change can be insufficient. Looking back, he laments (Hammer, 1996):

"I was reflecting my engineering background and was insufficiently appreciative of the human dimension."

The ethos of BPR is holistic and systemic – and a holistic, systemic approach to implementation is required. BPR is more than just 're-organisation' – it involves the modification of thought and behaviour too. There appeared in some quarters to be a belief that structural modification is sufficient to guarantee the necessary behavioural modification, and this is clearly not the case. Majchrzak and Wang's (1996: 99) case studies suggested that...

"...the success of Business Process Reengineering depends on how well managers create a collective sense of responsibility. Restructuring by process can lead to faster cycle times, greater customer satisfaction, and lower costs, but only if the organisation has a collaborative culture. Combining the boxes on the organisation chart alone will not create such a culture."

Persuasive words on this theme are supplied by Davenport (1995) himself (in Deakins & Makgill, 1997: 81):

"At a recent Boston forum, in fact, Michael Hammer gathered a group of business journalists to explore why re-engineering had become such a tainted term... The rock that re-engineering has foundered on is simple: people. Re-engineering treated people inside companies as if they were just so many bits and bytes, interchangeable parts to be re-engineered. But no one wants to be re-engineered."

In Xerox's reengineering efforts, the cultural element of change was and is seen as a critical accompaniment to structural change. Structural change is no panacea, and must be accompanied by technological, business process, strategic and, perhaps most importantly, cultural change (Bounds & Hewitt, 1994). This research has identified ongoing changes in each of these areas. It has also found Xerox's culture to be both a facilitator of, and potential barrier to change.

Variation exists in the extent to which particular businesses have applied BPR. Talwar's (1994) '*Re-engineering Spectrum*' posits five levels of BPR application – from Process Improvement, to Ongoing Renewal – and "provides a guide to the degree of mindset change, typical scope, target gains and risk of each approach." The spectrum is shown in diagram 1.1 overleaf.

BPR of the organisation-wide - 'Business Re-engineering' - variety leads logically to the creation of the process-oriented organisation. This project aims to study a particular set of processes in an organisation that is considered to already be process-oriented. As this research began, few organisations had implemented BPR to the extent that they occupied the upper echelons of Talwar's spectrum – Business Reengineering, Transformation or Ongoing Renewal. One study of European (predominantly UK) based firms found that BPR activity was highly prevalent, but that the majority of organisations were 'aiming low and hitting low' – and that:

"...whatever type of process being reengineered, with a few exceptions, most respondents were carrying our process improvement rather than a radical 'breakthrough' strategy (Willcocks, 1995: 26)."

The BPR debate was centred around "whether radical or incremental change is most effective and how such shifts occur within organisations (Earl et al, 1996: 175)." There was a paucity of published research into how post-BPR (process-oriented) organisations worked or made use of IT.

As mentioned above, Xerox were understood to be one such organisation. This understanding was arrived at following conversations with the researcher's academic supervisor (a former Vice President at Xerox), the industrial supervisor during introductory meetings (a current Director and General Manager at Xerox – see Chapter 2), and a colleague who was at the time conducting similar research

in the field of Information Management at Xerox (see Seltsikas, 1999). BPR initiatives began at Xerox in the late 1980s, and the process of 'restructuring for continuous change' began in 1992 (Bounds & Hewitt, 1994). Recently published research also suggested that Xerox were indeed 'process-oriented' (e.g. Davenport & Beers, 1995). Hence, Xerox were expected to fit into the process-oriented, 'Ongoing Renewal' category of Talwar's spectrum.

Diagram 1.1 – *The Re-engineering Spectrum* (Talwar, 1994)

Ddiagram 1.2 on the following page clarifies the focal area of this research. BPR is presented as a three level project – of Initiation, Implementation and Exploitation – and the vast majority of organisations and research occupy levels one and two. This research, and its research object – Xerox – reside at level three (Exploitation).

As all of the above explains, BPR recommends a substitution of Process for Function as the basic unit of organisational analysis. Previous research suggests that a variety of distinct process types exist, and that these disparate types of process can therefore be created, improved or reengineered. The existence of various process types also suggests that the process-oriented organisation is

constituted in some way of these process types. The aims of the following sections are to define the generic nature of business processes, to describe the various types of process already identified through research, and to identify the type of process this research seeks to investigate.

Diagram 1.2 – A Three Level Model of BPR (from Talwar, 1994)

1.6 Process Definitions

The literature contains many definitions of business process. For example, a business process is:

" *....a collection of activities that takes one or more kinds of input and creates an output that is of value to the customer* (Hammer & Champy, 1993: 35)." Or,

"*A structured, measured set of activities designed to produce a specified output for a particular customer or market* (Davenport, 1993: 5)." And,

"A *business process is a sequence of activities that fulfils the needs of an internal or external customer* (Harrison & Pratt, 1993: 7)"

It is clear from the above definitions that business processes are composed of activities, and that they have internal and external customers. What is not clear from a reading of these definitions, but is present in most writings on BPR, is the common view that business processes are boundary-independent. It is important to recognise that processes "cross organisational boundaries; that is, they normally occur across or between organisational subunits. Processes are usually independent of organisational structure" (Davenport & Short, 1990: pp12-13). Here 'structure' refers to the traditional constructs like 'function', 'division' and 'region'. Maybe processes have been neglected in the past because of this structure-independent facet of their nature. As Earl (1996: 66) implies, BPR demands a reversal of this neglect:

"Processes are real and they are how the business works. However, they have been ignored or forgotten in large organisations. More often their managements concern themselves with functions, business units, regions, and the like – the structures by which we describe and analyse organisations. Yet processes are visible and tangible, and are how things get done. Paradoxically, on organograms and in policy they are invisible and unrecognised."

BPR demands that processes be recognised, described and redesigned. Although numerous definitions exist, it is possible to distil from the literature the characteristics of what would be the archetypal business process. This model is composed of three process dimensions: Transformation, Aggregation and Customers. There follows a brief description of how each dimension is typically represented in the literature.

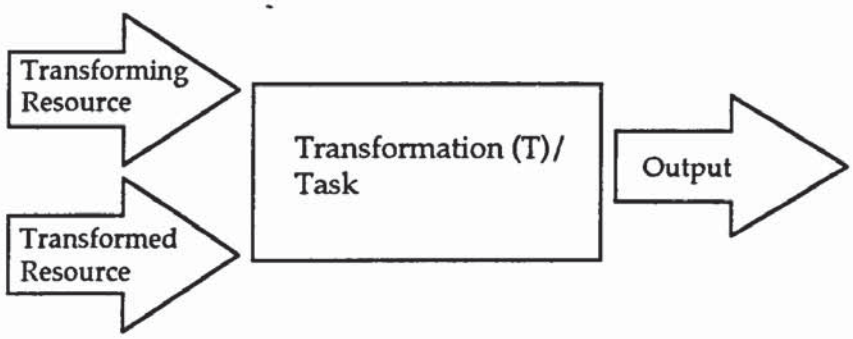
1.6.1 Transformation (T)

The transformation of resources from input to output is the key function of the business process. The points of input and output mark the beginning and end of the process respectively. The 'collection of activities', 'set of activities' and 'sequence of activities' in the definitions above populate the space between beginning and end (see Diagram 1.3). How these activities are organised and managed determines the efficiency of the process.

Inputs to the process can be broken down into two types of resources, both of which are needed in any transformation process. These are *Transformed Resources* (resources which are transformed in some way – e.g. Information,

Capital) and *Transforming Resources* (resources which act upon the transformed resources – e.g. People) (Harrison, 1995).

Diagram 1.3 - *Transformation in Business Process*

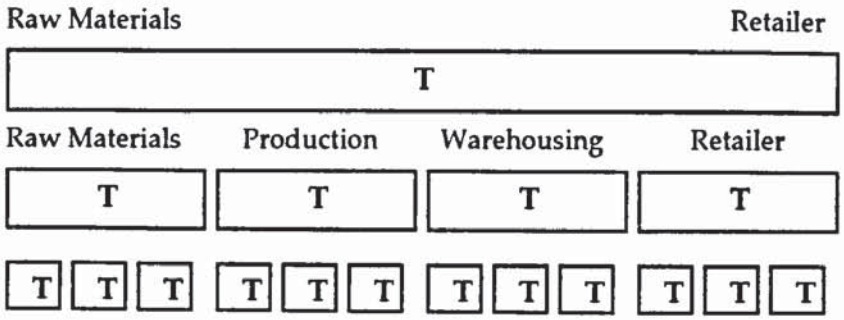


The efficiency of a process may be quantified by considering the reciprocal loss of energy used during the transformation (e.g. in terms of the time and/or cost of the operating process), and process effectiveness may be thought of as the frequency with which the process outputs conform to their output specifications (Hewitt, 1995).

1.6.2 Aggregation

Processes may be conceptualised at many levels of aggregation. A process at its highest level of aggregation might, for example, capture all firms and transformations involved in the supply chain for a complete product.

Diagram 1.4 - *Aggregation in Business Process*



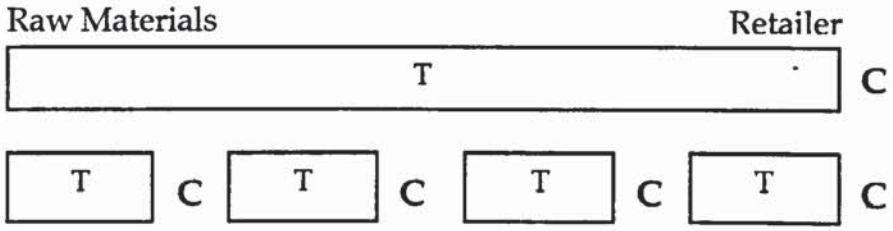
At its lowest level of aggregation that same process could be seen to consist of many sub-processes or sub-activities, each performing a single transformation from a single transformed, and a single transforming resource (see Diagram 1.4).

Business processes can be fragmented into sub-processes, and are thus hierarchically arranged (Harrison, 1995; Simon, 1995).

1.6.3 Customers (C)

Definitions of the business process regularly make explicit reference to 'the customer'; the entity whom the process exists to serve. The term customers is generally recognised to include both the 'end customer' of the business process (be they the consumer of a final product, or a purchaser of goods one step along the supply chain), and the internal customers forming part of the internal business process (from one 'end' of the company to the other). The answer to the question 'who is the customer?' is thus contingent upon the level of aggregation from which the process is viewed (see Diagram 1.5).

Diagram 1.5 - *Customers in Business Process*



Business Processes are understood at a basic level through the concepts of Transformation, Aggregation and Customers as defined above. It is possible to build on that understanding, following Malone et al (1997), with the aid of two further sources of intellectual leverage: the notion of *specialisation of process*, and the concepts of *co-ordination* and *dependency*.

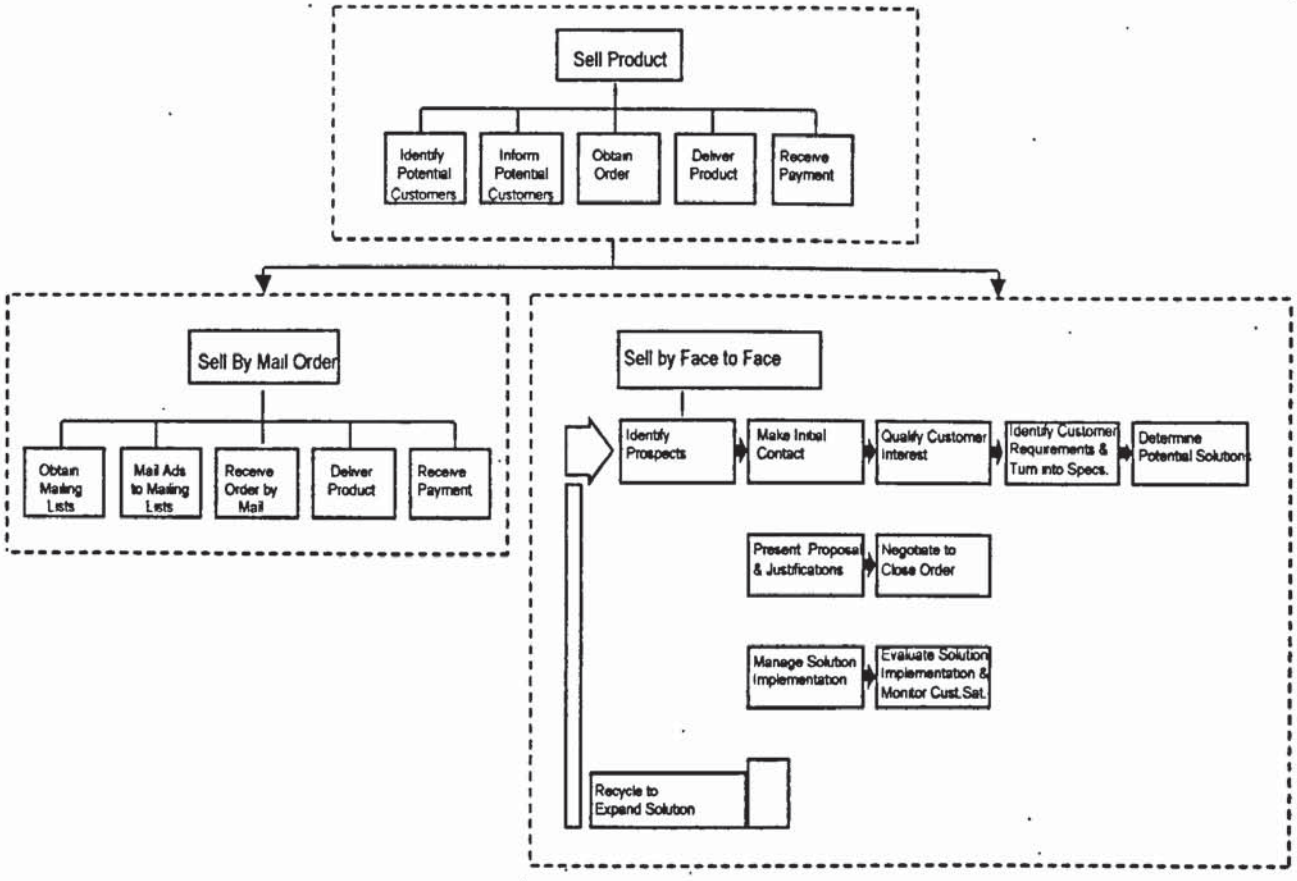
1.6.4 Specialisation of Process

The specialisation concept is closely related to that of Aggregation. Both concepts are based on ideas about process decomposition. Aggregation refers to the possibility of decomposing a process into the activities and sub-activities that constitute that process, and so processes are hierarchically arranged (c.f. Harrison, 1995). Specialisation, on the other hand, involves the decomposition or differentiation of processes into various 'types' (Malone et al, 1997). Thus, whereas a sub-activity represents a *part* of a process, a specialisation represents

a '*way of doing*' the process. (ibid.). There may, in fact, be several *versions* of the same generic process. Coincidentally, the example Malone et al use to demonstrate the specialisation concept is the 'Sell Product' process. Diagram 1.6, adapted from Malone et al (1997), demonstrates how the Aggregation and Specialisation concepts interact.

Diagram 1.6 shows that the 'Sell Product' process may be disaggregated into a number of sub-activities. Furthermore, the generic 'Sell Product' process may be differentiated into a number of specialisations. Aside from the two specialisations shown here, others might include 'Sell by Retail' or 'Sell over the Internet'. Again, each of these specialisations may be disaggregated into its relevant sub-activities. There may be elements of the 'parent' process that are inherited without change by each specialisation. Examination of the differences in sub-activities between specialisations (differences of heredity) facilitates a greater appreciation of the differing problems associated with organising and managing in each context. The 'Sell by Face to Face' element of diagram 1.6 is understood to have been used by Xerox in the past.

Diagram 1.6 - *Specialisation in the Sales Process* (adapted from Malone et al, 1997)



1.6.5 Coordination and Dependency

Malone and Crowston (1994: 90) define co-ordination as "*managing dependencies between activities.*" As it is known that business processes can be decomposed into a number of sub-activities (or sub-processes), and that in the systems view, the performance of a process depends more on how its parts interact than on how they act independently of each other (c.f. Section 1.4 above), this concept could be of great value.

As Malone et al (1997) note, the study of interdependency is not new. Thompson (1967) drew attention to the problems of managing interdependencies between organisational sub-units. Coordination Theory is in effect an application and extension of these ideas in the modern context. Instead of focusing upon interdependencies between organisational sub-units, Malone et al's work considers the interdependencies between activities. These interdependencies may exist between activities existing within sub-units (or organisations), or between activities performed in different sub-units. This shift in emphasis reflects a shift away from structures, and towards processes (Malone et al, 1997).

Malone et al (1997) delimit three different kinds of dependency, and suggest that these dependencies can be managed through alternative co-ordination processes or mechanisms. The three basic kinds of dependency are as follows.

Sharing Dependencies: occur whenever multiple activities all use the same resource, such as when a number of people need to use the same machine, or when a number of activities need to be performed by the same person.

Flow Dependencies: arise whenever one activity produces a resource that is used by another activity.

Fit Dependencies: arise when multiple activities collectively produce a single output, such as when many different engineers design different components of the same product. The dependency arises here as the pieces they are each designing need to fit together.

These dependencies are the activity (process) equivalents of Thompson's (1967) Pooled, Sequential and Reciprocal sub-unit dependencies respectively. The dependencies are associated with a number of alternative co-ordination mechanisms used for managing them. For example, sharing dependencies might be managed through the co-ordination mechanisms of 'first come - first serve', budgets, managerial decision making or market-like bidding (see Table 1.3).

Different kinds of dependency require different kinds of co-ordination process, because each type of dependency contains different degrees of contingency (Kumar & Dissel, 1996). Furthermore, the difficulty of co-ordinating activities is related to the degree of contingency between the parties in the relationship. The three types of dependency above are increasingly difficult to co-ordinate, because they contain increasing degrees of contingency (Thompson, 1967).

Table 1.3 – *Examples of Dependencies & Coordination Mechanisms* (from Malone et al, 1997)

Dependency	Examples of Coordination Mechanisms for Managing Dependency
Flow	
Prerequisite ('right time')	Make to Order vs. Make to Inventory ('pull' vs. 'push') Place orders using 'economic order quantity', 'JIT' (Kanban system), or detailed advance planning.
Accessibility ('right place')	Ship by various transportation modes or make at point of use.
Usability ('right thing')	Use standards or ask individual users (e.g., by having customer agree to purchase and/or by using participatory design.
Sharing	'First come / first serve', priority orders, managerial decision, market-like bidding.
Fit	Boeing's total simulations, Microsoft's daily build.

Malone et al (1997) state that the three types of dependency listed above are certainly not the only ones possible, but hypothesise that all other dependencies can be usefully analysed as specialisations or combinations of these three. For example (ibid: 10):

"....*flow dependencies* can be viewed as a combination of three other kinds of dependencies: *prerequisite* constraints (an item must be produced before it can be used), *accessibility* constraints (an item that is produced must be made available for use), and *usability* constraints (an item that is produced should be "usable" by the activity that uses it). Loosely speaking, managing these three dependencies amounts to having the right thing (usability), in the right place (accessibility), at the right time (prerequisite)."

These Coordination and Interdependency concepts are revisited in Section 1.9 below, and are applied in the contexts of IT enabled Business Network Redesign (BNR).

The archetypal business process exhibits the structural elements of Transformation, Aggregation and Customers; and is further understood through the concepts of process Specialisation and activity Dependency and Coordination. As suggested above, previous research has distinguished a number of different process types. These are described below.

1.7 Types of Business Process

It is commonly agreed that there exist four distinct business process types: Core Processes, Support Processes, Business Network Processes and Management Processes (e.g., Earl & Kahn, 1994; Willcocks & Smith. 1995). Core Processes are central to business functioning, relate directly to external customers and are typically the primary activities of the Value Chain (see Porter, 1985). Support processes are the 'back office' of core processes, have internal customers and are typically the support activities of the value chain. Business Network processes extend beyond organisational boundaries into suppliers, customers and allies. Finally, Management processes are those by which organisations plan, organise and control resources.

Garvin (1998) collates previous research into organisational processes and concludes that three major schools of process thought exist. These three schools are distinguished by their focus on a particular type of organisational process: Work processes, Behavioural Processes or Change processes. Each of the four business process types described above fall into the Work processes category, which comprises two process groups: Operational processes and Administrative

processes. Operational processes are those "that create, produce, and deliver products and services that customers want", and Administrative processes are those that "do not produce outputs that customers want, but that are still necessary for running the business" (ibid: 35). Hence, in Garvin's view, Core and Business Network processes are Operational processes, and Support and Management processes are Administrative processes.

Garvin's (1998) research is useful because it recognises that BPR activity has focussed on Work processes almost exclusively. The Work process perspective is most familiar to managers because "it draws heavily on the principles of the quality movement and reengineering" (ibid: 35), and it is useful (as explained above) because it provides a powerful framework for tackling the fragmentation and lack of cross-functional integration that many organisations face. Garvin suggests two reasons for the high rates of BPR project failure. First he suggests that most improvement programmes have focussed exclusively on process reengineering – that is, the continued operation and management of reengineered processes (BPM) has been neglected. This point is reflected in the relative paucity of existing BPM literature (see above). Second it is stated that the target for BPR initiatives has been Operational processes only, whilst Administrative processes have been overlooked. Thus "incompatibilities and inconsistencies have arisen when the information and plans needed for effective operation [of the reengineered process] were not forthcoming" (ibid: 36). These are valid and unsurprising reasons for BPR failure. However, the greater value of Garvin's work is that it recognises that the effective management of Work processes is contingent upon the skilled management of two other, complementary types of process: Behavioural processes and Change processes. Behavioural processes are:

"...generalisations, distilled from observations of everyday work and have no independent existence apart from the Work processes in which they appear... Behavioural processes profoundly affect the form, substance, and character of Work processes by shaping how they are carried out" (ibid: 37).

Change processes are:

"...explicitly dynamic and intertemporal... they are longitudinal and dynamic, designed to capture action as it unfolds, with three components always present: "as set of starting conditions, a functional end point, and an emergent process of

change." ...Each stage consists of groups of activities aimed at roughly similar goals, and the transition between stages may be smooth or turbulent."

The three process types are illustrated in Table 1.4 below.

Garvin's classification facilitates a deeper understanding of BPR. The reengineering of Work processes must necessarily take into account the management of attendant Behavioural and Change processes too. Recognising that the three process types are intimately linked reveals the futility of analysing them in isolation (Garvin, 1998). It seems that BPR efforts limited to a consideration of Work processes only are destined to become problematic:

"...if organisations are "systems for getting work done," processes provide a fine-grained description of the means... It is extraordinarily difficult – and, at times, impossible – to understand or alter a single process without first taking account of others on which it depends" (ibid: 42)."

Table 1.4 – *An Organisational Process Framework* (from Garvin, 1998)

	Work Processes	**Behavioural Processes**	**Change Processes**
Definition	• Sequence of activities that transform inputs into outputs	• Widely shared patterns of behaviour and ways of acting/interacting	• Sequences of events over time
Role	• Accomplish the work of the organisation	• Infuse and shape the way work is conducted by influencing how individuals and groups behave	• Alter the scale, character, and identity of the organisation
Major Categories	• Operational and Administrative	• Individual and Interpersonal	• Autonomous and Induced, Incremental and Revolutionary
Examples	• New product development, order fulfilment, strategic planning	• Decision making, communication, organisational learning	• Creation, growth, transformation, decline

Garvin's analysis provides a structured lens through which the prevalent 'cultural myopia' of BPR practitioners (as described in Section 1.5 above) may be understood, and possibly remedied.

As well as focussing in the main on Work processes, the majority of BPR accounts are internally oriented. That is, "almost all of the writings on BPR have an inward-focus, with the stress on processes that are internal to an organisation and with little emphasis on the external value chain...(Shah et al, 1994). Put another way, the vast majority of literature is concerned primarily with BPR rather than Business Network Redesign (BNR). BNR is seen by some as a special case of BPR (e.g., Spinardi et al, 1996), rather than a separate practice. Edwards & Peppard (1994) argue that BNR is simply BPR seen at the highest level of process Aggregation (although they use the term 'granulation'), and regret the artificial (in their view) distinction. As the above shows, it is possible to conceive of the entire supply chain for a good or service as a single process. However, the BPR/BNR distinction is now commonly accepted.

This initial aim of this research was to explore the use of IT in Customer Engagement (Face to Face Selling) operations within a process-oriented organisation. It was therefore anticipated that the research would focus predominantly on externally oriented – possibly Business Network – processes, and an understanding of the BNR concept became necessary. BNR is typically discussed from an IT perspective. Thus it is appropriate at this stage to examine the role IT has played in the development and application of BPR, before describing the BNR concept in more detail.

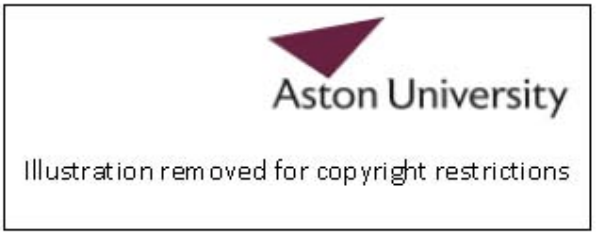
1.8 BPR and IT

Davenport & Short (1990) identified IT as the first of two new tools that are transforming organisations to the extent that Taylorism once did. The other tool is, of course, BPR. IT, according to these authors, should be "viewed as more than an automating or mechanising force; it can fundamentally shape the way business is done." (ibid: 12). Furthermore, BPR and IT were seen as mutually dependent, they were both equally essential in the 'New Industrial Engineering':

"Our research suggests that IT can be more than a useful tool in business process redesign. In leading edge practice, information technology and BPR have a recursive relationship... Each is the key to thinking about the other. Thinking about information technology should be in terms of how it supports new or redesigned business processes, rather than business functions or other organisational entities. And business processes and process improvements should be considered in terms of the capabilities information technology can provide" (ibid: 12).

The posited 'recursive relationship' between IT and BPR is shown in diagram 1.8. Conventional wisdom suggested that systems development and application should follow the specification of business requirements. However, BPR's progenitors (Davenport & Short, 1990: 16) argued that IT should drive business requirements – "IT can actually create new process design opportunities, rather than simply support them." Managements should think inductively – they should consider what IT allows them to do (Hammer & Champy, 1993). There is nothing wrong with IT applications looking for business problems (Preece & Peppard, 1993). In this view, process-oriented organisation is made possible by IT. Early BPR was, then, very much an information systems endeavour (Earl, 1996).

Diagram 1.7 – *The Recursive Relationship between IT Capabilities and BPR* (from Davenport & Short, 1990)



The role of IT in BPR appears to have shifted from 'driver' to 'enabler' in recent years (Talwar, 1994), although no clear consensus as to the role of IT has emerged. Some BPR initiatives have depended very little on IT investment (Earl,

1994), and in others its role is central (Short & Venkatraman, 1992). Talwar (1994: 54) states that the emphasis has shifted towards business ownership of BPR initiatives, and that the role of IT has been mediated to 'enabler' rather than 'driver' partly because:

"...as with earlier attempts to promote IT for Competitive Advantage – the delivery has failed to match up to the promise. IT has been plagued by the same recurring problems of late delivery of over-specified, under-functional systems that cost far more than originally planned."

BPR, as the above has recognised, is essentially about organisational change. Furthermore, it is not the first initiative to advocate the potential benefits of IT application. Countless attempts have been made to accrue business results through the application of IT, and many studies have been made into both successful and unsuccessful installations. Advice is available for managements who seek it, for example:

"The clear, practical lesson from this work is that the successful cases have usually been those where technological change has been accompanied by appropriate organisational change. The less successful ones have generally been those where projects have been dominated by technical considerations, with little or no thought given to organisational ones" (Boddy, 1996: 16).

Whether driver or enabler, IT remains a central element of the BPR literature. The differences of view are differences of focus, or emphasis – but it is rarely omitted from consideration. Preece and Peppard's (1993: 7) appropriate metaphor summarises the IT-role debate: "As the bank manager usually tells us, money may not be the key to happiness but a lack of it is a reasonable guarantee of misery."

The *potential* benefits of IT application are profound. The merging of computing and telecommunications technologies, and the advent of cost-effective and widespread IT application, leads to the collapsing of temporal and geographic organisational barriers:

"By compressing the effects of time and space, modern computing and telecommunications technologies offer the potential for breakthrough performance gains. For instances, IT can be used to improve organisational efficiency and effectiveness by eliminating delay, administrative intermediaries, redundant processing steps and by providing better access to information. These innovative

applications of IT can be expected to fundamentally transform business processes within and between organisations" (Teng et al, 1994: 95).

It is argued by BPR/BNR proponents that modern IT enables the operation of new organisational forms, of which the process-oriented organisation is one. As stated earlier, BPR and the resulting process orientation are organisational responses to the changing, and increasingly demanding environmental pressures that firms face. These responses, it is argued, are made possible by modern IT capabilities:

"as shifts in the environment and customer demand occur more frequently, organisations have been forced to develop new models of operating in order to be able to respond to market demands. In order to be more responsive or 'fleet of foot' organisations have increasingly adopted new organisational arrangements... At the same time that market forces are requiring organisations to adopt different arrangements and structures, the capabilities of IT to support many of these new arrangements is also becoming increasingly affordable for most organisations. At the heart of many of these geographically diverse and fleeting configurations is the ability of IT quickly and cheaply to transmit data, thus effectively eliminating barriers of time and distance that would previously have been impediments to organisational adaption (Sampler, 1996: 11)."

Davenport & Short (1990) delimit eight IT capabilities and make suggestions as to how each capability might impact on organisational performance – see Table 1.8 overleaf. More recently, Earl (1996: 68) suggests that there are two recurrent IT elements in BPR applications. Firstly:

"Shared databases (or systems) are often essential in integrating functions and ensuring different actors in a process view their world and activities in the same way. Secondly, networking not only allows... integration and co-ordination but also enables both collection and dissemination of data through a process."

The fundamental capability of IT that enables or drives BPR, and new organisational configurations in general, is the potential to reduce the cost of co-ordination, or to increase the scope or intensity of co-ordination, within and between organisations. Business processes are the new means of co-ordinating organisational activity, and IT's "promise – and perhaps it's ultimate impact – is to be the most powerful tool in the twentieth century for reducing the costs of this co-ordination" (Davenport & Short, 1990: 12).

Table 1.5 – *IT Capabilities and Their Organisational Impacts* (Davenport & Short, 1990)

Capability	Organisational Impact / Benefit
Transactional	IT can transform unstructured processes into routinised transactions
Geographical	IT can transfer information with rapidity and ease across large distances, making processes independent of geography
Automational	IT can replace or reduce human labour in a process
Analytical	IT can bring complex analytical methods to bear on a process
Informational	IT can bring vast amounts of detailed information into a process
Sequential	IT can enable changes in the sequence of tasks in a process, often allowing multiple tasks to be worked on simultaneously
Knowledge Management	IT allows the capture and dissemination of knowledge and expertise to improve the process
Tracking	IT allows the detailed tracking of task status, inputs, and outputs
Disintermediation	IT can be used to connect two parties within a process that would otherwise communicate through an intermediary (internal or external)

The impact of this reduction in the cost of co-ordination on the structure of organisations is yet to be realised fully, but it is an important area of research. A particularly important facet of the debate, from the point of view of this research, is the impact IT will have on the relationship between organisations in the Supply Chain. This research focuses on externally oriented, inter-organisational processes: processes through which Xerox and buyers interact. It is therefore important to understand how IT may impact these externally oriented, business network processes. BNR is described below.

1.9 BNR and IT

Short and Venkatraman (1992) introduce the concept of BNR by noting that the vast majority of BPR initiatives begin with grand ambition, yet too often degenerate into simple cost cutting, or downsizing projects. Most BPR projects, they regret, are exclusively internally oriented:

"...many, if not most, business process redesign initiatives invariably turn inward. From the perspective of customers, the external supplier network, and key trading

partners, the danger is simply that business process redesign *may have little or no measurable impact on the firm's external market performance* (ibid: 7)."

More recently, Venkatraman distinguished BPR from BNR through his five level model of IT-enabled business transformation (Venkatraman, 1994 – see Diagram 1.9 below). The central thesis underlying the model is that:

"...the benefits from IT deployment are marginal if only superimposed on existing conditions (especially strategies, structures, processes, and culture). Thus the benefits accrue in those cases where investments in IT functionality accompany corresponding changes in organisational characteristics (ibid: 74)."

Diagram 1.8 – *5 Levels of IT-Enabled Business Transformation* (from Venkatraman, 1994)

This is reminiscent of Hammer's (1990: 104) famous plea for managements to "...stop paving the cowpaths." 'Localised Exploitation' and 'Internal Integration' are akin to the IT-enabled 'paving' of existing processes – the former involves minimal process change, the latter existing process integration. BPR on the other hand, as is now familiar:

"...reflects a strong view that the benefits of IT functionality are not fully realised if superimposed on the current business processes – however integrated they may be. This is because the current business processes subscribe to a set of organisational principles that responded to the industrial revolution. Organisational principles such as centralisation versus decentralisation, span of control, line versus staff, functional specialisation, authority-responsibility balance,

and administrative mechanisms for co-ordination and control are all derived from the general principles. Although these concepts are still valid, IT functionality can significantly alter some of these "first principles" of business process redesign (ibid: 78)."

The fifth and final level of Venkatraman's model is Business Scope Redefinition (BSR), which is the most radical, and potentially lucrative option. BSR builds on BPR and BNR, and evokes the possibility of redefining the "rules of the game" through IT application. Venkatraman (1994: 83) summarises BSR in the following terms:

"Strategy analysis typically starts with the proverbial question, "What business(es) are we in – and why?" The fifth level of transformation directly addresses the question but with an important variant: "What role – if any – does IT play in influencing business scope and the logic of business relationships within the extended network?" ...the core logic of organisational strategy involves the three higher levels of the transformational framework with business processes designed (level three) to support the logic of business scope definition (level five) and the specific positions in the business network (level four)."

Business Network Redesign (BNR) itself is defined as:

"the reconfiguration of the scope and tasks of the business network, including the tasks both within and outside the focal organisation and the consequent redesign of the "virtual business network" through IT capabilities (Venkatraman, 1991)."

The previous three levels (Localised Exploitation, Internal Integration and BPR) of Venkatraman's model deal with IT-enabled business transformation within a single organisation. In these levels the boundaries of the focal organisation are assumed to be fixed or given, and the distribution of activities between organisations is not altered. In contrast, the BNR level "represents the redesign of the nature of exchange among multiple participants in a business network through the effective deployment of IT capabilities (Venkatraman, 1994: 79)."

BNR, like BPR, is not about simple process improvement or the automation of existing processes. Inter-company processes are often automated through Electronic Data Interchange (EDI), and there has been a tendency to equate EDI and BNR. BNR represents a restructuring of the roles and relationships between organisations, but, as Spinardi et al (1996: 25) have found:

"....EDI has almost entirely been adopted as a means of replicating existing transactions within existing trading relationships. ....EDI implementation is

conservative automation of existing processes, with only limited evidence of incremental development of new kinds of information exchange."

Furthermore, EDI is probably another example of IT-enabled cowpath paving:

"Automating existing trading transactions may provide some efficiency gains, but it also embeds existing relationships in 'technical' systems."

The scope and potential benefits of BNR are broader than the efficient transaction processing that EDI may allow. Table 1.6, from Venkatraman (1994), summarises the scope and benefits of BNR proper.

Table 1.6 - *The Scope and Benefits of BNR* (Venkatraman, 1994).

Scope/ Functions	Description	Participant Conditions	Potential Benefits
Transaction Processing	Seamless interconnection for exchanging structured data on transactions	Potentially unlimited under conditions of acceptance of standards and security requirements	Administrative efficiency enhancements
Inventory Movement	Triggered across orgs. based on predefined conditions without human intervention	Governed by standard contracts between the participating organisations	Operational efficiency enhancements
Process Linkage	Interdependent process linkages for unstructured tasks (for example, design and manufacturing	Governed by specialised contract or strategic alliances based on mutual benefits	Potential for different-iation in the market place through greater coverage of sources of competencies
Knowledge Leverage	Creation of a network for leveraging skills and expertise	Governed by professional norms rather than contractual conditions	Enhanced learning - potentially valuable under highly uncertain situations

As BNR is an activity that focuses primarily on inter-company processes, the type of IT employed is normally Inter-Organisational systems (IOS). IOS play an enabling role in BNR initiatives: the benefits accrue from the effective use of these systems, rather than the functionality of the systems *per se*:

"...while IOS is an efficient *conduit* to exchange important information between trading partners, it is the organisation's capability to leverage these systems to create interdependent processes, or enhance decision making, or provide distinct value-added services that leads to effectiveness (Venkatraman, 1994: 80)."

Kumar and Dissel (1996) develop a useful typology of IOS, based on the concepts of Interdependence and Coordination (introduced in Section 1.6 above). Co-operation between organisations implies that a level of interdependence exists between those organisations (Kumar & Dissel, 1996). Furthermore, co-operative relationships between entities require co-ordination. Coordination may be defined *as managing dependencies between activities*, and various types of dependency may be managed through the use of various co-ordination mechanisms or co-ordination processes (Malone & Crowston, 1994).

Kumar and Dissel (1996) - using Thompson's (1967) typology of Pooled, Sequential and Reciprocal dependencies - show that there is an association between 'technology type' and dependency, and that three types of technology can be mapped onto the three types of dependency. This is because technologies (in this case IOS) are the software and system manifestation of (inter-organisational) relationships (ibid.) Mediating, Long-Linked and Intensive technologies are appropriate for Pooled, Sequential and Reciprocal dependencies respectively. The author suggests that, in a BNR context, the three technology types may also be appropriate for the Malone et al's (1997) process-equivalent, Sharing, Flow and Fit dependencies respectively.

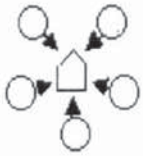
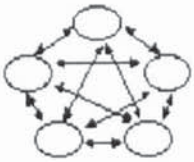
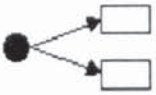
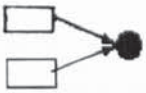
Mediating technologies: essentially bring people together through the use of a common resource. IOS examples include shared databases, Networks and the World Wide Web (WWW).

Long-Linked technologies: involve a series of activities that are arranged in series, so the performance of earlier activities is necessary before later activities can be performed. IOS examples include EDI applications and Voice Mail.

Intensive technologies: comprise of a number of technological options that may be combined in a number of ways. These technologies are used to achieve a change in some object, but feedback from that object determines the combination of technological options to be applied. IOS examples include CAD Data Interchange and Video-Conferencing.

Building on the association between technology and inter-organisational dependency, Kumar and Dissel (1986) suggest a three-part typology of IOS: Pooled Information Resource IOS; Supply Chain IOS; and Networked IOS (see Table 1.7 below).

Table 1.7 – *Dependencies and Technology Types* (adapted from Kumar & Dissel, 1996, and Malone et al, 1997)

Type of Interdependence	Pooled Interdependence	Sequential Interdependence	Reciprocal Interdependence	
Configuration				Kumar & Dissel, 1996
Dependency Type	Sharing	Flow	Fit	Malone et al, 1997
Configuration ● = Resource ▭ = Activity				
Technologies	Mediating	Long- Linked	Intensive	Kumar & Dissel, 1996
Type of IOS	Pooled Information Resource IOS	Value/Supply-Chain IOS	Networked IOS	
Examples of Implementation Technologies and Applications	Shared Databases Networks Applications Electronic Markets	EDI Applications Voice Mail Facsimile	CAD/CASE Data Interchange Central Repositories Desk-Top Sharing Video-Conferencing	

In the light of this understanding of the relationships between inter-organisational interdependence, co-ordination, and IOS type, it may be possible to further understand the 'mechanics' of BNR. Specifically, these concepts might be used to chart the changes in relationships that BNR initiatives entail; and to provide an explanatory framework with which to assess the co-ordination and dependency implications of IT-enabled BNR initiatives. As Malone et al (1997) state : "co-ordination mechanisms are often those most susceptible to being changed by information technology."

Supply Chain Management (SCM) is an activity closely related to BNR, as both are concerned with the nature of interaction between organisations. Again, because this research is focused on Customer Engagement – or inter-organisational – processes, an understanding of previous research in the SCM field is required. The following section identifies the current trends in the use of IT for SCM, and describes recent research into how IT may affect the structure of Supply Chains. In this latter area, the reduction in the costs of co-ordination through IT again plays a significant role.

1.10 Supply Chain Management and IT

A Supply Chain is:

"a system whose constituent parts include material suppliers, production facilities, distribution services and customers linked together via the feedforward flow of materials and the feedback flow of information (Stevens, 1989)."

SCM can be loosely defined as the management of materials and information flows both in and between facilities, such as vendors, manufacturing and assembly plants and distribution centres (Thomas & Griffin, 1996). SCM and associated disciplines such as logistics have been the focus of much research attention, with numerous journals and texts devoted to their understanding and application.

Until recently individual firms have been unwilling to view the supply chain from an holistic, systemic perspective, and have thus focused solely on the maximisation of their own profitability. Companies have historically struggled to keep economic gains to themselves, and have embraced the competitive model which suggests that companies will lose bargaining power - and therefore the ability to control profits - as suppliers or customers gain strength (Johnston & Lawrence, 1988). As Ashkenas (1990: 386) notes, "...this traditional "every man (or woman) for himself" view has led to dynamics which unintentionally result in minimisation or destruction of competitive value, such as:

- *Strategies and plans are developed independently.*
- *Information sharing and joint problem solving is limited.*

- *Accounting, measurement, and reward systems are separate and unsynchronised.*
- *Sales forces "push" products on their terms.*
- *Resources are inefficiently utilised."*

Furthermore, as firms increasingly compete on capabilities such as customer service, quality, cycle time and constant innovation, rather than cost and technical excellence alone, the deficiencies in this way of viewing the supply chain become increasingly evident. In the contemporary competitive arena (as described in Section 1.3), companies require increased flexibility throughout the Supply Chain, a greater focus on the external customer than on debates within the supply chain, and considerably more speed in product development, customer response, problem resolution and every other facet of business (Ashkenas, 1990). One response to these requirements has been a rationalisation of the supplier base – a simplification of the Supply Chain.

1.10.1 Supply Chain Simplification & Electronic Hierarchies

One recent trend in the SCM is a move towards the use of fewer suppliers or customers. This rationalising of the supplier and customer base tends to be accompanied by the forming of deeper associations or relationships with those suppliers or customers remaining (Lyons et al, 1990). The rationale underlying such a move includes a focus on the 'optimal cost' of transactions rather than the more traditional 'cheapest price' of product (Towill, 1997). In attempting to realise the minimal price per unit of input, buyers may employ tactics such as playing many suppliers off against each other, threatening 'backward integration', using shadow cost calculations and refusing to sign contracts which extended over more than one year (Matthyssens & Van den Bulte, 1994).

The total cost of doing business with many suppliers at linkage points in the Supply Chain includes those arising from inconsistencies in input, congestion in production, cumbersome administrative procedures, the search and negotiation time involved in the switching of suppliers and the investments associated with the building of relationships. Considering these costs it becomes apparent that, if approved suppliers can a satisfy a sufficient range of input needs, then working with fewer suppliers incurs lower costs over time and leads to an increase in the

value of transactions between partners (Towill, 1997). Purchasing companies begin to realise that the 'antagonistic' model of buyer-supplier relations leads to short term cost savings only.

The rationalisation of the supplier base can further be understood as an example of the practical application of Ashby's Law (Towill, 1997). Ashby's Law states that, for a system to remain viable, as many independent control actions must be available as there are variables to be controlled: only variety can destroy variety. Thus, effective control of the Supply Chain requires either simplification of the system (a reduction in the number of variables to be controlled) or increasing the number of controls. The first option, eliminating unnecessary complexity, is preferred, since the second solution is expensive to implement, potentially confusing and prone to error (ibid.).

The complexity to be reduced in this case is that associated with dealing with many suppliers or customers. Inter-Organisational Systems (IOS) are often established with the aim of simplifying or enabling relationships between adjacent parties in the supply chain. Electronic channels between parties may simplify much of the complexity associated with making a purchase - such as processing and tracking the order, accounting for the sale and reducing paper work (Malone et al, 1989).

Cost considerations aside, a number of the recent innovations in managerial philosophy and practice actively encourage the forging of closer relationships with other companies in the supply chain. Two such innovations are Total Quality Management (TQM) (e.g., Wotruba, 1996) and Just In Time production (JIT) (e.g., Matthyssens & Van den Bulte, 1994). The trend towards the development of closer relationships between buyers and suppliers represents a move away from the co-ordination of activity via markets, to the co-ordination of activity via hierarchies.

In electronic hierarchies the flow of materials through adjacent steps in the value chain is driven by managerial decision making rather than market forces (Malone et al, 1987). The same authors suggest that product distribution is one inter-company function that the establishment of electronic hierarchies may significantly improve. Buyers may establish an electronic hierarchy arrangement

with a supplier with the aim of establishing JIT inventory delivery, and JIT involves the strict synchronisation of supplier and buyer actions, which is facilitated through careful consultation. The use of IOS may simplify these processes. Also, buyers in established JIT relationships are likely to desire long term relationships "....because changing would require another substantial investment in learning to work with the new vendor (Jackson, 1985: 134, in Malone et al, 1987: 495)."

One theory as to the establishment of IOS is that they will be used to 'tie-in' trading partners and lock out competitors (Holland, 1995). The term 'tie-in' indicates that power relationships are of great significance in SCM. As Malone et al (1987) note, the positions of relative power in the buyer-supplier relationship may be consolidated or changed by new electronic arrangements. It seems that the logic underlying much IOS implementation is not so rooted in the 'antagonistic' competitive model as a contemporary 'win-win', synergistic model. The term 'partnership' is commonly used in association with IOS (Johnston & Lawrence, 1988; Lyons et al, 1990; Konsynski & McFarlan, 1990; Towill, 1997), and its usage is compatible with the new paradigm of customer-supplier relations proposed by Ashkenas (1992).

Johnston & Lawrence (1988) emphasise the need to share information vertically (and to some extent horizontally) along the Supply Chain. Clearly IOS play an important role in the sharing and communicating of this information. It is also noted that IOS are able to enhance partnerships, but do not create them. It is managements who understand the relationships along the entire Supply Chain, and the need for each link to be as strong as possible, that enable the success of what they call a Value Added Partnership (VAP).

Each company in a VAP cultivates relationships with from two to six suppliers and customers. Again, having too many partners means few repeat transactions and not enough time for close relationships to develop (ibid.). In order to reap the benefits of operating in a VAP, such as the reduction of external co-ordination costs, it is necessary for companies to move away from free market transactions towards closer hierarchical relations. IOS facilitate the hierarchical co-ordination necessary between the partners along the value chain (Gurbaxani & Whang, 1991).

It is the economic logic of co-operation that leads companies to develop closer relationships along the value chain, and to establish IOS. Table 1.8 shows three alternative modes of co-ordination in the Supply Chain against a number of cost factors associated with operating in each mode. The table shows that the 'Partnership' option has the potential to deliver the benefits of vertical integration (such as low transaction uncertainty), but avoids the need to own each of the transacting parties (Towill, 1997).

Malone et al (1987) argue that IT, by enhancing manufacturing techniques and reducing tool-up times, has the capacity to reduce the 'asset specificity' of components (see below). Therefore, in a comparison between electronic markets ('Free Market') and electronic hierarchies ('Partnership'), asset specificity becomes less of a critical factor in decision making.

Table 1.8 also shows that the 'Partnership' option has the distinct advantages of low transaction uncertainty and a high frequency of interaction. As discussed above these factors are critical if the firm is to focus on the optimal cost of transactions (rather than lowest price), and is to implement contemporary initiatives such as JIT production. Furthermore, it can be argued that IOS are a powerful aid to increasing the flexibility of the organisation through the rapid deployment of its resources, thus reducing the difference between electronic markets and electronic hierarchies in the 'Flexibility' column. On the basis of the dimensions shown in table 1.8, it is reasonable to conclude that the preferred mode of supply chain structure is 'Partnership'.

Table 1.8 - *Comparison of Supply Chain Structures and Transaction Costs* (from Towill, 1997)

Cost Factor / Supply Chain Organisational Structure	Asset Specificity to Individual Partner	Transaction Uncertainty	Frequency of Interaction	Flexibility of Organisation and Resources
Free Market	Low	High	Variable	High
Partnership	Medium	Low	High	Medium
Vertical Integration	High	Low	High	Low

Electronic hierarchies are an extension of the partnership philosophy. IOS enable these partnerships to work more efficiently than was previously the case. Clean information flow between parties is required to achieve what Towill (1997) calls the 'seamless' Supply Chain. Furthermore, reaping the benefits associated with operating the seamless chain, for example lead time reduction, "....requires an openness, commonality of vision, and shared information which is.... a state which can only be achieved by the appropriate level of partnership (ibid: 53)."

The above is a brief summary of the arguments suggesting that Supply Chains will be managed through electronic hierarchies, rather than electronic markets, as IOS become increasingly prevalent. Electronic hierarchies are a feature of the wider shift in managerial thought towards a more co-operative model of competition. IOS appear to play an enabling role in the general shift towards closer buyer-supplier relations; allowing the free flow of information, enabling a reduction in transaction complexity, and facilitating an increase in Supply Chain efficiency through the reduction in external co-ordination costs. However, there are also powerful counter arguments. Below is a summary of the reasoning underlying the belief that, as IOS become widespread, Supply Chains – and inter-company processes - will instead be managed through electronic markets.

1.10.2 The Argument for Electronic Markets

The problem of predicting likely changes to market structures (and Supply Chain structures), as IOS become widespread, has frequently been examined through the lens Transaction Cost Economics (Holland, 1995). Transaction Costs are alternatively termed 'External Coordination Costs' and are, in short, the costs associated with doing business with other firms. They can be classified into two categories (see Table 1.9 on the following page): costs associated with establishing and maintaining contractual relationships with outside parties, and operational inefficiency costs (Gurbaxani & Whang, 1991).

Gurbaxani and Whang (1991) note that modern IT can directly reduce external co-ordination costs in the 'Operational' category by providing cost effective means to access market information and to process transactions; and that IT can lead to the reduction of 'Contractual' costs as it may facilitate tighter interfirm links through information sharing and mutual monitoring (as described above). Malone

et al (1987) provide a thorough analysis of the impact IT may have on such co-ordination costs, and their arguments are summarised below.

Table 1.9 - *Market Coordination Costs* (Gurbaxani & Whang, 1991).

External Coordination Costs or: **Market Transaction Costs**	Operational	-Search Costs -Transportational Costs -Inventory Holding Costs -Communications Costs
	Contractual	-Costs of Writing Costs -Costs of Enforcing Costs

Malone et al (1987) begin by showing that the costs of co-ordination are high in markets relative to hierarchies, and that the costs of production are high in hierarchies relative to markets (see Table 1.10). Production costs include the physical or other core processes necessary to create and distribute the goods or services being produced. Coordination costs include determining the design, price, quantity, delivery schedule, and other similar factors for products transferred between adjacent steps in a Supply Chain. In markets, this involves selecting suppliers, negotiating contracts, paying bills and so forth. In hierarchies, it involves managerial decision making, accounting, planning and control processes. Production costs are relatively low in markets as the buyer can compare many different suppliers and select the one that provides the best combination of characteristics such as design and price, thus minimising production costs for the desired product. Coordination costs are relatively high in markets compared with hierarchies because in the latter the costs of gathering and analysing a great deal of information about different suppliers is reduced or eliminated. However, as the authors note:

"Since the essence of co-ordination involves communicating and processing information, the use of information technology seems likely to reduce these costs (ibid : 486)."

Table 1.10 - *Relative Costs for Markets and Hierarchies* (from Malone et al (1987)

Organisational Form	Production Costs	Coordination Costs
Markets	Low	High
Hierarchies	High	Low

Two further factors influencing the preferred mode of production are then introduced; *Asset Specificity* (briefly mentioned above) and *Complexity of Product Design.* Highly specific assets are more likely to be acquired through hierarchical arrangements, rather than market arrangements. This is because:

a) Transactions involving highly specific assets often involve a long period of development during which the supplier adjusts to meet the specific needs of the buyer. The continuity of relationships found in the hierarchy are important here.

b) There are, by definition, few alternative buyers or suppliers for the highly specific asset. Thus, both parties in the transaction are vulnerable, as the loss of either party (through closure, changing needs, or termination of production) leads to the other suffering sizeable losses. Again the closer relationships and greater control in the hierarchical structure are mutually desirable.

Complexity of product description refers to the amount of information specifying the attributes of a product that potential buyers need to make a selection. Products with complex descriptions are more likely to be obtained through hierarchical arrangements, since the costs of communicating information about a product are lower in the hierarchy than in the market. In summary then;

"....items that are both highly asset specific and highly complex in product description are more likely to be obtained through a hierarchical relationship, while items that are not very asset specific and have simple product descriptions are more often acquired through a market relationship (ibid: 487)."

The role of IT in reducing costs and determining the preferred mode of co-ordination is illustrated through the introduction of three effects associated with electronic interconnection and IOS; the *Electronic Communication Effect, the Electronic Brokerage Effect* and *the Electronic Integration Effect.*

The Electronic Communication Effect:

This effect refers to the changes made possible as computer and telecommunications technology are used for transferring information. Here IT may a) allow more information to be communicated in the same amount of time (or the same amount in less time), and b) decrease the costs of this communication dramatically.

The Electronic Brokerage Effect:

Electronic Markets, by electronically connecting many buyers and suppliers, can fulfil the same function as a broker. The electronic brokerage effect can then a) increase the number of alternatives that can be considered, b) increase the quality of the alternative eventually selected, and c) decrease the cost of the entire product selection process.

The Electronic Integration Effect:

The Electronic Integration effect is the result of an IOS's ability to allow adjacent parties in the value chain to create joint, interpenetrating processes (an example of BNR). This effect occurs when IT is used not just to speed communication, but to change (and lead to a tighter coupling of) the processes that create and use the information. The benefits accruing from this effect are most easily captured in electronic hierarchies, but can sometimes also be apparent in electronic markets.

Having introduced the above Malone et al (1987) then go on to outline why such effects will lead to a proportionate shift towards the use of electronic markets rather than electronic hierarchies. They state that the widespread use of IT is likely to decrease the unit cost of co-ordination. As co-ordination processes involve communicating and processing information, the appropriate use of IOS can reduce co-ordination costs. Referring back to the relative costs of production and co-ordination in markets and hierarchies (Table 1.10), the authors argue that a reduction in the unit cost of co-ordination (through IT) leads to a decrease in this dimension's importance in selecting a mode of co-ordination. Decision makers are left to consider only relative production costs, and are drawn to the conclusion that; without changing anything else, a reduction in co-ordination costs leads to an increase in the proportion of economic activity co-ordinated by markets.

Furthermore, as flexible manufacturing technology allows the rapid changeover of production lines from one product to another, the costs of producing small numbers of components decreases. Some physically specific components that are similar to other non-specific components may, argue the authors, be produced by more companies. Such components then become less specific and, following the reasoning above, may be produced more cost effectively in the market.

The ability of IT to communicate and manipulate product descriptions is another factor contributing to the relative shift towards the use of proportionately more market structures. Modern IT can communicate sophisticated and multidimensional descriptions much more readily than traditional modes of communication. Descriptions previously thought of as highly complex may now be regarded as low in complexity relative to the capabilities of the technology used to communicate and manipulate them. As the market structure is preferable with low description complexity, the impact of IOS again results in the use of more market structures.

Focusing on how the widespread use of IT may change the ways organisations and markets will be structured, Malone and Crowston (1994) again predict that, by reducing the cost of co-ordination, the widespread use of IT will induce an increase in the usage of market structures. These authors postulate a three stage trajectory of how these markets may emerge.

1) A "first-order" effect of reducing the cost of co-ordination with IT may be to substitute IT for some human co-ordination. The authors offer as an example the substitution of automated systems in banks (ATMs) for large numbers of human clerks in their back offices.

2) A "second-order" effect may be to increase the overall amount of co-ordination used.

3) A "third-order" effect of reducing co-ordination costs may be to encourage the use of more co-ordination-intensive structures. In other words, co-ordination structures that were previously too expensive will now become more feasible and desirable (Malone & Crowston, 1994). The market structure rather than the hierarchical structure, is more co-ordination-intensive (Malone et al, 1987).

Arguing in more 'managerial' than economic parlance, Malone et al (1989) again present their arguments in favour of electronic markets. Malone et al (1989) begin

their discussion with electronic links between suppliers and customers in operation. Electronic sales channels that work, they argue, do so because they give the customer something of real value; they are more convenient than conventional ordering techniques, they eliminate a great deal of clerical and paper work, they allow customers and suppliers to streamline processes, and may facilitate just-in-time deliveries with consequent reductions in materials inventories. However, "....even customers who appreciate the convenience and savings of single-source sales channels don't like being locked into one supplier. They would rather be able to compare a number of competing products to be sure of getting the product features they want, at the best price. That's where electronic markets come in. (ibid: 167)."

Electronic markets offer the same convenience as electronic hierarchies, but also include offerings from competing suppliers. Naturally then, from a customer's perspective, electronic markets are considered more desirable than single-source sales channels. Furthermore, as the authors note, if the technology exists with which to create electronic markets, and customers want them, it is just a matter of time until services arise to meet that need. As we can see "....electronic markets are not a fad. They are in fact inevitable (ibid: 172)."

All of the above suggests that there are equally persuasive arguments for predicting a shift to each form of co-ordination structure. In the first instance, evolution towards the use of more electronic hierarchies occurs as managements recognise the inefficiencies inherent in the antagonistic model of SCM. A second period of contrary evolution is stimulated as companies recognise the further efficiency gains made available through the use of IOS in the electronic market.

Strong evidence confirms that the trend towards electronic integration, and the use of electronic hierarchies, is already underway: a paradigm shift in SCM is apparent. The 'old way', following the 'antagonistic' model of competition, was to view the supply chain as a collection of independent entities connected solely by market forces. The 'new way', predicated on the 'co-operative' model of competition, acknowledges that significant business improvement is very much dependent on how the company interfaces with up and down stream players in the supply chain. Consequently organisations are 'getting closer and nicer' (Matthyssens & Van den Bulte, 1994), forming 'Value Added Partnerships'

(Johnston & Lawrence, 1988), 'Information Partnerships' (Konsynski & McFarlan, 1990) and 'Boundaryless Corporations' (Devanna & Tichy, 1990). In short, with respect to the Supply Chain, the literature suggests that organisations are taking to heart the holistic, systemic notion that 'a rising tide raises all boats' (Ashkenas et al, 1995).

A progression towards electronic markets represents a return to the antagonistic model of competitive behaviour. An important question then, is whether the cost savings associated with electronic markets outweigh the benefits accrued through closer hierarchical relations. Malone et al (1987) present a convincing case for the reduction of external co-ordination costs through the use of IOS; and it is on the basis of these efficiency gains that the move towards the market mode of co-ordination is predicted. However, in assessing the impact of IT on firm structure, Gurbaxani and Whang (1991) demonstrate that a focus upon transaction costs alone is insufficient. These authors observe that, by reducing internal *as well as* external co-ordination costs, the use of IT can support both a decrease or increase in vertical integration, rather than the decrease only predicted by Malone et al (1987).

The cost efficiencies associated with the electronic market mode of co-ordination are those arising through increased market incentive among suppliers (Holland, 1995), and through decreased external co-ordination costs - for example search and communication costs (Malone et al, 1987). The benefits of closer inter-firm relationships, however, are not limited to those of cost efficiency. Lyons et al (1990) argue that, although closer relationships with fewer high volume suppliers can lead to buyer cost savings resulting from suppliers' economies of scale, this cost factor plays a significant but supporting role. Instead, it is argued, contemporary manufacturing efforts are primarily quality rather than cost driven: hence, so too are buyer-suppler relations. Input quality may be improved through the forging of closer and longer term relationships. Lyons et al (1990) highlight a number of benefits associated with closer relationships that are not directly cost driven. For the buyer these include supply assurance, contract predictability and enhanced support relationships. Supplier side benefits include contract predictability, a more stable workforce, joint problem solving and the ability to influence the buyer's future decision making. Von Hippel (1985, cited in Jarillo, 1988) shows also how a close relationship with suppliers and customers can be

the most important source of innovation for firms. Furthermore, these benefits are not contingent upon (but may be enhanced by) the establishment of IOS. IOS are the software and system manifestation of interorganisational relationships (Kumar & Dissel, 1996), and it is the benefits accruing from these closer relationships that motivate their construction. Co-operative strategies are driving the implementation of IOS (Holland, 1995).

The motivation to construct closer buyer-supplier relations is not rooted solely in a potential reduction of the costs of co-ordination, although co-ordination cost reductions do result. Evidently, the scope of benefits associated with fewer, increasingly co-operative relationships is much wider. Electronic markets are inevitable, it has been argued, because buyers in the supply chain naturally prefer the freedom of choice multiple sourcing options represent (Malone et al, 1987). It could be argued, however, that buyers are choosing to substitute the benefits of co-operation for that freedom of choice, and the benefits of co-operation are not exclusively due to IOS. IOS enable these closer relations, but their absence does not preclude them.

At this stage in the debate there exists considerable divergence of opinion amongst authors, indicating that the respective theories are in an early stage of development (Holland, 1995). Furthermore, there is a relative paucity of data with which to test them. As Daniel & Klimis (1999: 321) state, in the decade and more since Malone et al first presented the case for Electronic Markets "...there have been few attempts to empirically test the hypotheses." Furthermore, the results of the few empirical studies published appear mixed.

Hess and Kemerer (1994) examined five case studies in the loan industry following the introduction of computerised systems. Those authors found that a decade of experience with these systems had not led to any fundamental change in the industry. However, Daniel and Klimis' (1999: 318) study of the Music and Retail Financial Services industries found that 'some elements' of the Electronic Markets Hypothesis can be observed in those industries. Critically, Daniel and Klimis recognise that the products of both industries are compatible with electronic / digital transmission. The products of the retail financial services and music industries are both low in Asset Specificity, and exhibit a low-to-medium and low (with the aid of IT) Complexity of Product Description respectively.

Evidence of Electronic Brokerage is reported in both industries. Daniel & Klimis (1999) suggest three reasons which could explain the current (and apparent) absence of unbiased markets:

1. The absence of a critical mass of retailers that have made the transition to the electronic marketplace.

2. The persistence of consumers shopping in the physical environment.

3. Consumers willing to remain loyal to suppliers that they are familiar with rather than searching electronic markets for alternative suppliers.

At this time there exists only limited (published) evidence that confirms empirically the electronic markets hypotheses. But it is important to note that this does not mean that the logic of electronic markets (as presented by Malone et al (1987, 1999)) is flawed. The absence of substantial supportive empirical evidence does not mean that the trajectories projected by Malone et al will not occur in the future.

Currently, however, it appears that there is a stronger case for the continuing establishment of electronic hierarchies; a case built upon more than external co-ordination cost considerations, which seem to underpin the projected shift to the use of electronic markets. In the light of the discussion above, the conclusions reached in the field research of Holland (1995) would appear to be supported: that,

"Competition between individual organisations is not taking place electronically but instead IOSs are being used to *reduce* the level of competition between suppliers and customers in a common supply chain. Competition is now taking place between separate supply chains rather than between individual organisations (ibid: 132)"

Kettinger and Grover (1995: 12) summarise the various positions in the 'markets v. hierarchies' debate, and explain the significance to firms of resolving the issue of how to manage inter-organisational processes as follows:

"In terms of interorganisational processes, literature indicates the benefits of 'partnering' on a long-term co-operative basis with external suppliers. Resource Dependency Theory, however, presents an alternative formula for interorganisational relations. Under this theory, firms are interdependent and seek to control others to minimise their dependency on resources, thereby increasing the ability to monitor and influence behaviour. The resulting inter-organisational relationship is competitive. Transaction Cost Theory urges organisations to lower transaction costs and to keep suppliers at a safe distance, often using short-term,

market-based solutions as opposed to long-term co-operative relationships. Clearly, organisations that recognise the need to continuously manage this competition and co-operation dialectic have a greater propensity to benefit from employee incentives and controls as well as to maintain profitable long-term relationships."

Despite the significant advantages that co-ordination through electronic hierarchies offer, there still exist significant (but relatively few) examples in which the evolutionary path charted by Malone et al (1987) has been followed. That is, where electronic hierarchies have been superseded by electronic markets. Therefore, a particularly important challenge in this area is to understand why this evolution should occur in some cases and not others. Two important variables to be considered are the type of product being procured or sold, and the position in the supply chain at which transactions are occurring. Research exists supporting the view that different types of product (or, rather, different types of consumer demand pattern) require fundamentally different types of supply chain (Fisher, 1997). Malone et al's (1987) research also shows that input asset specificity is also an important determinant of co-ordination structure. As the trend towards co-operation and co-ordination via IOS continues, and in the light of Malone et al's predictions, further research examining why electronic markets appear to be appropriate for some products and not others, and at some Supply Chain locations and not others, is certainly required.

A potentially useful and complementary theoretical framework for understanding the co-ordination of business-to-business (or business-to-consumer – as in Daniel & Klimis' (1999) study) activity is provided by Daft & Lengel (1986). Building on the work of Galbraith (1973), these authors examine the relationship between organisation structure and information processing requirements. They argue that different co-ordination mechanisms are appropriate for managing different degrees of departmental interdependence. Co-ordination mechanisms employ different media, and different media exhibit differing degrees of 'richness' – where 'richness' "...pertains to the learning capacity of a communication" (ibid: 560).

Richness refers to the capacity of a medium to process and change the meaning of information over time. Furthermore, the degree of departmental interdependence is related to the amount of information required to co-ordinate inter-departmental activity. Specifically, the amount of information needed to manage effectively rises with the degree of departmental interdependence.

Hence, the richest media are appropriate where a high level of interdependence exists.

Daft & Lengel (1986) classify the following media as decreasing in richness:

1) Face to Face, 2) Telephone, 3) Personal documents such as letters and memos, 4) Impersonal written memos, and 5) Numeric documents.

The Face to Face medium is the richest medium because (ibid: 560) it:

"...provides immediate feedback so that interpretation can be checked. Face to Face also provides multiple clues vie body language and tone of voice, and message content is expressed in natural language."

It is suggested here that Daft & Lengel's work may facilitate understanding of the different modes of inter-organisational co-ordination (electronic markets or hierarchies) – and the situations in which each is appropriate. That is, where in the supply chain, and for which types of product are electronic markets or hierarchies appropriate. If Daft & Lengel's approach is equally appropriate to the study of both inter-departmental and inter-organisational co-ordination (which seems plausible), it follows that media of high richness are appropriate to the management of highly interdependent organisational relations (hierarchies), and media of low richness are appropriate to the management of lower interdependency (i.e. markets).

Daft & Lengel state that low richness media are effective for processing well understood messages and standard data, but are less appropriate for resolving equivocal issues. Perhaps, then, media of high richness (e.g. F2F) are appropriate for transactions involving items of high complexity, and media of lower richness to transactions involving commodity defined products. If this relationship holds (and it seems intuitively plausible), then the media richness of IOS types becomes of critical significance in determining whether and when Electronic Markets or Electronic Hierarchies are appropriate. IOS of high richness may enable the formation of electronic markets for products of higher complexity. Equally, the absence of high-richness IOS may preclude such market formation. The question then presents itself, how rich are the currently available IOS media?

Until IOS media develops to a sufficient richness, it seems that Electronic Markets will be limited in scope to the management transactions involving simple, low complexity (and perhaps value) products. Daft & Lengel's frameworks are clearly an appropriate area for renewed attention – and their significance for understanding just when and why electronic markets are possible is deserving of further investigation.

As noted in sections 1.6.5 and 1.9 above, the study of co-ordination and interdependence can be of great import in understanding the dynamics of BPR and BNR. BPR and BNR initiatives involve changing the level of interdependence between organisational departments (in internal BPR) and organisations themselves (in BNR). The removal of inter-departmental barriers is likely to result in increased interdependence, and therefore an increased need for inter-departmental communication. Following Daft & Lengel's (1986) reasoning, post-BPR/BNR organisations are likely to require an increased use of rich media in the successful management of their operations. Therefore, because many BPR initiatives are 'IT-enabled', the relative richness of IT media (and other co-ordination mechanisms) is an important consideration for both BPR practitioners and theorists. Again, this is an area deserving of further research.

Finally, and prior to concluding this Chapter, the initial focus of this research is clarified once more. The researcher's original objective was to investigate how IT is used in the F2F Selling Process by Xerox, a process-oriented organisation. The key background field of interest is IT-enabled BPR (or BNR). A useful summary of BPR is provided by Kettinger & Grover (1995: 12), who define the practice (which they term Business Process Change Management (BPCM)) as...

"...a strategy-driven organisational initiative to improve and (re) design business processes to achieve competitive advantage in performance (e.g. quality, responsiveness, cost, flexibility, satisfaction, shareholder value, and other critical process measures) through changes in the relationship between management, technology, organisational structure, and people."

BPR (or BPCM) is a means to the delivery of strategic change, and involves the (attempted) transformation of interrelated organisational sub-systems – *organisational structures*, *information technology*, *management* (style, values, measures) and *people* (jobs, skills, culture) – which are viewed through the

analytic lens of the business process (intrafunctional, cross-functional, interorganisational) (Kettinger et al, 1995, 1997). Kettinger and Grover (1995: 20) provide a useful theoretical framework for BPCM – "grounded in existing literature and observation of practice" - which...

"...provides a roadmap for the identification and development of concepts, constructs, variables and relationships, all of which are necessary for theoretical development (1994: 24)."

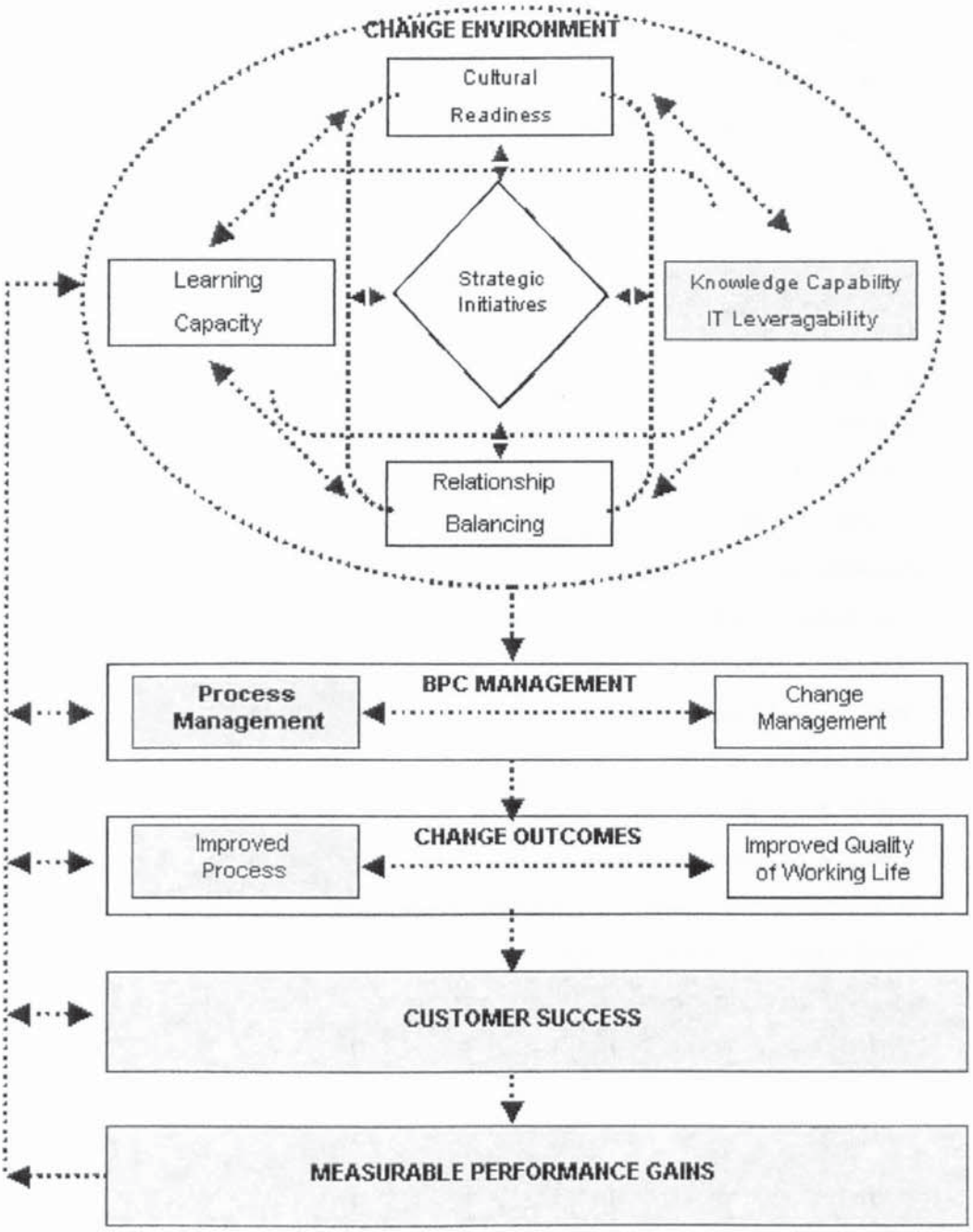
That framework is shown in Diagram 1.9 on the following page. The framework suggests that BPCM begins with the development of *Strategic Initiatives*, which begin with an assessment of the organisation's propensity and ability to change. This *Change Environment* is understood with reference to the *Cultural Readiness, Learning Capacity, Relationship* (between the organisation and others in the business network) *Balancing, IT Leveragability* and *Knowledge Capability* aspects of the organisation.

BPCM (or BPR) itself consists of two complementary elements: *Process Management* and *Change Management* – which, when successful, results in *Improved Processes, Improved Quality of Working Life, Customer Success* and *Measurable Performance Gains*. Kettinger et al's model suggests that the success or failure of BPCM is intricately linked with the organisational change environment in which it is practiced.

As stated above (for example see Section 1.5 and Diagram 1.2), this research focuses on the use of IT by one process-oriented organisation. That is, the inquiry targets the IT-enabled *exploitation* of (rather than the creation of) a process-oriented organisational structure. At the outset of this inquiry, therefore, the focal area of interest was the 'Process Management' element of BPC Management, and the research was expected to contribute understanding primarily in this area. The 'Change Management' aspect of BPCM was of secondary concern. Kettinger and Grover (1995: 15) define Process Management (PM) practice as:

"...a set of concepts and practices aimed at better stewardship of business processes. PM combines methodological approaches with human resource management to improve the quality of process product and services towards the goals of increased customer success."

Diagram 1.9 – *A Proposed Theoretical Framework of Business Process Change Management* (adapted from Kettinger & Grover, 1995)



The additional shading on Diagram 1.9 suggests that the research was also expected to contribute (but probably to a lesser extent) in the 'IT Leveragability', 'Improved Process', 'Customer Success' and 'Measurable Performance Gains' elements of Kettinger and Grover's (1995) theoretical framework.

As the reader will find, the 'results' Chapters of this thesis (Chapters 3 to 6) contain Xerox-specific descriptions that relate to each of the elements in Diagram 1.9. Furthermore, each of Kettinger & Grover's (1995) BPCM organisational sub-systems (Organisational Structure, IT, Management and People) are well represented both in the four descriptive Chapters, and the conclusions presented in Chapter 7. This is an early indication of Xerox's holistic approach to the management of process-oriented Customer Engagement.

1.11 Literature Review Conclusions

The above review provides the literary context of this research. It described the rationale for, nature of, and problems associated with the key field of interest: BPR. The review also described the state of contemporary knowledge in the complementary fields of BNR and SCM, and suggested that there is a continuing debate as to the appropriate role of IT in BPR, BNR and SCM. As this research began, the great majority of published work in the BPR field was limited to a description of the phenomenon, or dealt with BPR activity up to the point of implementation. Previous research considers how to *do* BPR, and how IT may drive or enable BPR activity. However, very little was known about organisations that have *become* process-oriented. This is possibly a consequence of the simple fact that very few truly process-oriented organisations exist (Davenport & Beers, 1995). The majority of BPR activity is limited in scope to 'Process Improvement' or 'Process Reengineering', rather than organisation-wide 'Business Reengineering' (Talwar, 1994): rarely have *all* of an organisation's processes been targeted (Willcocks, 1995). Whatever the reasons for this paucity of extant knowledge, this research contributes to its remedy.

This research began with the aim of understanding how process-oriented organisations use IT in Customer Engagement (initially Face to Face) processes. The original direction of the research was to a degree pre-specified in the researcher's project brief. In terms provided by previous research, it is concerned with a particular 'Core' (Earl & Kahn, 1994), possibly 'Business Network' (Venkatraman, 1994), 'Operational' (Garvin, 1998) process – namely, the Xerox Selling Process.

The literature contains very few examples of inter-company BPR or BNR, and this research will extend understanding in this area. Two notable exemplars of previous research in that field are Short and Venkatraman's (1992) 'classic' study of the evolutionary development of Baxter's ASAP Strategic Information System, and Hewitt's (1995) description of Bose's redesign of the procurement process. Interestingly, in light of the discussion in Sections 1.10.1 and 1.10.2 above, Short and Venkatraman (1992) suggest that, in the US medical supplies industry, there has been a move away from electronic hierarchies (with earlier versions of the ASAP system), towards a biased electronic market – structured with "a few relatively large multivendor systems (ibid: pp16-17)". Both of these examples provide illustrations of BNR in practice, but neither focus explicitly on the Selling Process of a process-oriented vendor organisation.

The reasons for focusing initially on the Xerox Selling Process are three-fold. First, it is clear that knowledge of how this process is structured, managed, performed, used and enabled (or not) by IT is lacking, but important and useful. Second, at project inception it was thought that by focusing on a single process, 'natural' and necessary limits to the study area could be introduced: by limiting interest to Face to Face sales operations and a single process, the researcher could pursue a rich level of understanding of a naturally 'bounded' problem. In the event, this reasoning proved to be somewhat naïve. The problem boundaries imposed by the researcher were in fact artificial, and a complete understanding of Xerox's Face to Face and Selling Process operations requires a complementary understanding of other modes of Customer Engagement – as the results of this work show. Finally, and pragmatically, the research focus was determined in part by the industrial sponsor's (Xerox) interests. On first meeting the industrial supervisor (and co-sponsor), the researcher learned that considerable resources had been invested in attempts to improve Selling Process performance, but these efforts did not result in comparable operational benefits. Clearly, an understanding of why this is so would be of value to the sponsor, and the results of this research do contain observations as to why previous initiatives failed.

Following the literature research stage of the project, and in consultation with the research supervisors, a number of general research questions were defined. These included:

1. ***What does the Xerox Selling Process look like?***
2. ***Is the Xerox Selling Process 'specialised' for different products, markets etc?***
3. ***How do Xerox use IT in the Selling Process?***
4. ***What benefits accrue from using IT in the Selling Process?***
5. ***What problems are associated with using IT in the Selling Process?***
6. ***How is the Selling Process managed?***
7. ***How are Customer Engagement personnel organised?***

This research provides answers to these and many other questions. It is important to note that the hypotheses associated with these questions were not 'tested' against the case site. The researcher did not operationalise those hypotheses into measurable constructs, variables and postulated relationships. A non-positivist approach to the project was adopted, and although broad themes of inquiry were specified by the author, the precise research focus, questions and answers were in effect provided by Xerox participants during field engagement.

Much of the description contained in Chapters 3 to 6 does relate to the questions above. However, one benefit of the methodological approach adopted in this inquiry is that the investigative scope of the project is not limited by the specification of initial (and tentative) research questions. In the event, the focus and 'problem boundaries' of this work extended well beyond that suggested by those initial questions.

In Chapter 2 the rationale underlying the researcher's choice of inquiry paradigm and research methods is described. That Chapter also describes how the selected research methods were used in practice, how the research focus evolved over time, and how the results of this inquiry were generated from the evidence collected.

Chapter 2

Research Methodology

2.1 Introduction

Research is a human endeavour, and all research is premised on the assumptions of human inquirers. These assumptions may be explicit or implicit, complementary or dissonant, but in each project they influence the structure and procedures of the research activity.

This Chapter begins with an exploration into the nature and significance of assumptions about how research is and should be conducted. This exploration focuses on assumptions about the nature of social reality (ontology), the possibility of developing knowledge about that reality (epistemology) and the available means for securing that knowledge (research methods). Together these philosophical and practical assumption elements constitute the methodological framework of research.

Combined assumption elements are often crystallised into formal axiomatic systems, and differing axiomatic systems represent disparate inquiry paradigms. The paradigmatic concept, and its implications for the practise of research, constitute the binding themes of this chapter.

From a consideration of the paradigmatic concept in general, the emphasis then shifts to the question of paradigmatic choice in this research. In Sections 2.3 to 2.6 two broad paradigmatic traditions are described – the Positivist and Non-positivist – each premised upon very different philosophical and practical assumptions. The paradigmatic identity of the present research is made explicit in Section 2.7, in which the rationale informing the author's choosing between the two traditions described previously is discussed.

The mid-sections of this Chapter focus on the alternative methods and data gathering tools available for research of this type. Consideration is given to the principle of Methodological Consistency – that is, the use of research methods

and tools in a manner consistent with the paradigmatic positioning of the inquiry as a whole. Sections 2.8 to 2.10 examine the issue of method and tool selection in this research, and describe how the instruments selected were employed during the data collection phase of this project.

The final sections of the Chapter deal with the issues of research quality and the analysis of research data (Sections 2.11 to 2.13). Again, both methodological consistency and transparency of paradigmatic identity are maintained – in the criteria suggested for the judging of the project, and in the strategies of data analysis employed.

This introduction began with an assertion that the assumptions and beliefs held by inquirers are central to any research endeavour. The following section explores the reasons why this is so, and seeks to explain the significance to research of the paradigmatic concept.

2.2 Competing Paradigms in Social Research

Since the publication of Thomas Kuhn's seminal text '*The Structure of Scientific Revolutions*' (1962,1970), the concept of 'paradigm', and its corollary 'paradigm incommensurability', have become essential elements in the language of research. Kuhn's history of science - not as a linear and incremental accumulation of verified facts; but as characterised by punctuations of revolutionary change and paradigmatic substitution – has led to the increasingly accepted view that observations are necessarily 'theory-dependent' (Bryman, 1988). The 'theory dependent' conception of knowledge has its roots in, or is at least resonant with, the philosophy of Immanuel Kant (1724-1804), and in particular his distinction between 'empirical' and 'a priori' propositions. According to Kant, our understanding of the world is in part due to sensory perception, but also to our capacity to organise these perceptions. As Russell (1961: 680) explains, in Kant's view:

"...the outer world causes only the matter of sensation, but our own mental apparatus orders this matter in space and time, and supplies the concepts by means of which we understand experience. Things in themselves, which are the causes of our sensations, are unknowable; they are not in space or time, they are not substances, nor can they be described by any of those other general concepts which Kant calls 'categories'. Space and time are subjective, they are part of our

apparatus of perception. But just because of this, we can be sure that whatever we experience will exhibit the characteristics dealt with by geometry and the science of time. If you always wore blue spectacles, you could be sure of seeing everything in blue.... But we have no reason to suppose that anything analogous is true of things in themselves, which we do not experience."

Similarly, for Kuhn, inquirers approach their object of study from within one or another paradigm (with paradigmatic spectacles in place), which in its most generic sense can be defined as "a basic set of beliefs that guides action (Guba, 1990)." Whereas some of Kant's organising 'categories' are known a priori, the sets of beliefs constituting a Kuhnian paradigm are internalised through socialisation, and are thus amenable to change (in principle at least). These sets of beliefs impinge upon and guide behaviour in each sphere of human activity, be it the every day variety, or that associated with a disciplined inquiry (ibid.). Lincoln (1985:30) recognises the plurality of everyday paradigms, asserting that:

"...as it appears appropriate, each of us moves in and out of paradigms throughout any work day, and with scarcely a thought about the belief and value systems the undergird them."

They are fundamental to our understanding of the world, as the following definition suggests. In the same author's view (ibid: 29), a paradigm is:

"...a view of the world – a Weltanschauung – that reflects our most basic beliefs and assumptions about the human condition, whether or not there is any such thing as 'sin', what is real, what is true, what is beautiful, and what is the nature of things."

Paradigms facilitate action, inform judgement, and constitute the perspective from which decisions are made. The often tacit nature of the beliefs structuring a paradigm can be problematic. As Patton (1975:9) observes:

"...it is this aspect of a paradigm that constitutes both its strength and its weakness – its strength in that it makes action possible, its weakness in that the very reason for action is hidden in the unquestioned assumptions of the paradigm (in Lincoln, 1985:30)."

This discussion is concerned primarily with the paradigmatic notion and its significance for disciplined inquiry - and the discussion is from here limited to paradigms of this sort. Kuhn's view of scientific progress centred on communities of scientists practising within a scientific speciality. These scientists are considered to share a paradigm which consists of: the way in which the

community views the nature of the reality which they study; the techniques which are appropriate for investigating this reality; and accepted exemplars of past scientific achievements (Blakie, 1993).

Proponents of competing inquiry paradigms are seen to be always and necessarily at cross-purposes. Two protagonists, each arguing the case for the supremacy of their paradigmatic posture, are bound partly to talk through each other:

"Neither side will grant all the non-empirical assumptions that the other needs in order to make its case... Though each may hope to convert the other to his way of seeing his science and its problems, neither may hope to prove his case. The competition between paradigms is not the sort of battle that can be resolved by proofs (Kuhn, 1970: 148)."

Paradigmatic beliefs are intrinsic to researchers' understanding of the objects of inquiry. Two inquirers, observing from within two different paradigmatic worlds, "can see different things when they look from the same point in the same direction (Ibid: 150)." The incompatibility of paradigms is an essential element of Kuhn's thesis. This phenomenon he terms 'paradigm incommensurability', and this feature of the research landscape will recur frequently throughout the continuing discussion of paradigm choice in the study of organisation.

Although Kuhn's thesis centred upon progress in the natural sciences, it is held that the paradigmatic concept is applicable also to other domains of inquiry. The continuing debate about the appropriateness or otherwise of particular paradigms in the field of organisational analysis is testament to this view. It is certainly the case that, since the publication of Kuhn's work, the proliferation of paradigmatic alternatives has continued apace. The recognition that observations and 'facts' are theory-dependent has led to many and varied formulations as to the nature of these theories. And, as a consequence, the paradigm selection element of the research process has become problematic in itself.

The recognition that paradigmatic posture is reflected in decisions as to the appropriate focus of study, and also the potential nature of findings, was the impetus behind, and a salient theme throughout, Burrell & Morgan's (1979) landmark text on organisational analysis. These authors identified four mutually exclusive (incommensurable) paradigms which were found to reflect quite

separate views as to the nature of social reality. During their investigations, they identified one recurrent theme; that "all theories of organisation are based upon a philosophy of science and a theory of society (ibid: X)". Further, and importantly, they also recognised the often tacit nature of paradigmatic beliefs, and the necessity of recognising the influence such beliefs may exert:

"Although organisation theorists are not always very explicit about the basic assumptions which inform their point of view, it is clear that that all take a stand on each of these issues. Whether they are aware of it or not, they bring to their subject of study a frame of reference which reflects a whole series of assumptions about the nature of the social world and the way in which it might be investigated (ibid: X)"

Burrell & Morgan's is but one of many 'Kuhnian schemes' in existence today (Hassard, 1990), and the task of identifying one's own paradigm affiliation is becoming increasingly complex. But identifying and making explicit one's position is nonetheless a principal element of the research process.

At the outset of the research endeavour the inquirer faces a congested terrain of competing alternatives, negotiation of which can at times seem both daunting and arduous. However, as the complexity of the paradigmatic landscape increases, so too does the responsibility to make one's position clear. In surveying some of the many alternatives now available, Blakie (1993: pp1-2) notes the need for some strategy in dealing with this responsibility, and the potential difficulty of doing so:

"A common solution to this problem is to adopt one path from the intersecting maze, one paradigm or theoretical perspective, and travel along it with blinkers firmly in place. Another is to be uncritically eclectic, gathering up and combining bits and pieces of various approaches. While it may have been possible to sustain such behaviour in the past, it is no longer defensible. More sophisticated solutions are required. However, the magnitude of the task of coming to grips with the alternatives poses considerable problems for both the novice and the experienced researcher."

It is clear that the paradigmatic proclivities of the researcher manifest themselves in the decisions made as to what to research, and how. A clear statement as to the paradigmatic basis from which research is conducted is therefore useful to both the researcher, and the reader. It is useful to the researcher because, as is explained further below, paradigmatic choice has a bearing on the way in which research tools are employed, the kinds of data likely to prove useful and the processes through which those data might be interpreted. In short, an

understanding of one's own paradigmatic position is essential in constructing a coherent research design, and so doing 'good research'.

Making one's paradigmatic choice clear is useful to the reader also, because it is the reader's task to evaluate the research product. Kuhn's concept of paradigm incommensurability is important here. As discussed above, the possibility of communication across the paradigmatic divide is problematic. In developing their scheme, Burrell & Morgan (1979: XII) are at pains to avoid the fallacies that can ensue from an unfamiliarity with the incommensurability thesis:

"...the concepts of one paradigm cannot easily be interpreted in terms of those of another. To understand a new paradigm one has to explore it from the inside, in terms of its own distinctive problematic... No attempt is made to criticise and evaluate from a perspective *outside* the paradigm. Such criticism is all too easy but self defeating, since it is usually directed at the foundations of the paradigm itself. All four paradigms [and all others] can successfully be demolished in these terms."

Evaluation of this research is facilitated through a statement as to the vantage point from which it is conducted, and, hence, from which it should be criticised.

It is clearly beyond the scope of this project to provide a concise description of every paradigm in existence today. A complete and exhaustive exposition of even a single paradigm requires the examination of an associated, and often rich philosophical history. The principle of economy demands that some strategy be employed in rendering the task of paradigm identification manageable. To this end the analysis in this Chapter is limited in scope to a discussion of two broad 'paradigmatic traditions'. Within each tradition there exist numerous competing alternatives. But the paradigms in each tradition share a number of fundamental tenets – tenets that are in stark opposition to those shared by the paradigms of the alternative tradition. These two traditions are the 'Positivist' tradition, and the 'Non-Positivist' tradition.

To reiterate, paradigms are based on fundamentally different assumptions about the nature of reality, the nature of knowledge, and the feasible means of apprehending that knowledge. They differ along the assumption axes of ontology, epistemology and method; and these combined assumptions define disparate paradigms. To surface these assumptions, Guba & Lincoln (1989) pose three interrelated questions:

❶ **The Ontological Question**: *What is the nature of reality? Or, What is the nature of the 'knowable'?*

❷ **The Epistemological Question**: *What is the nature of knowledge? Or, How can we be sure that we know what we know?*

❸ **The Method-ological Question**: *What are the ways of finding out knowledge? Or, How can we go about finding out things?*

It is clear that the answers to these questions can not be proved or disproved in any foundational sense. If definitive proof were available, no doubt would exist as to the 'appropriate' or 'best' way to practice research (Guba, 1990), and the problem of paradigm choice would evaporate. Answers to these questions provide a formal definition of the inquiry paradigm in use.

The interrelatedness of the questions above is evidenced by the difficulty with which each can be treated in isolation. Reciprocal contingencies exist between the three; and how we answer each may constrain the ways in which we might deal with the others. The degree to which the relationship between these questions is fixed, prescriptive, or strictly contingent – for example, in order to guarantee a research design that is internally consistent (Lincoln, 1985) – is the subject of a later discussion (see section 2.8). The following section introduces the first of the two paradigmatic traditions described in this Chapter: the Positivist Tradition.

2.3 The Positivist Tradition

Of the two traditions considered here, it is positivism that has provided the foundation for most modern theoretical and empirical research on the subject of organisation (Clark, 1985; Morgan, 1990). This is in part a simple consequence of the tradition's relative longevity vis-à-vis the non-positivist alternative. Yet, to the lament of Morgan and others (e.g. Martin, 1990, Guba, 1990), institutional preferences (of academic journals and university departments) also serve to maintain this status quo.

The tradition has deep roots and has grown from a rich philosophical history. It is a tradition closely aligned to the natural science model of inquiry, and reflects that tradition's assumptions and methods. It is no simple task to provide a definitive list

of the assumptions which together delineate the positivist position. Any explication of the position is unlikely to satisfy all readers, and any list is likely to prove contentious on at least some measure. To Bryman's (1988: 14) apparent despair:

"...even among more sophisticated treatments of positivism a wide range of meanings is likely to be discerned... [and]...even when there is a rough overlap among authors on the basic meaning of the term, they rarely agree precisely on its essential components."

Paradigm definitions are often provided as a means to counter-argument - or as a point of departure from which to justify the adoption of an alternative stance. As Halfpenny (1992: 11) notes, "there are differences that depend upon whether the term is used to label oneself or one's enemies, for the positivism of the positivist differs from the positivism of anti-positivists."

Positivism, it is held, is the paradigm upon which the logic of the scientific method is based. However, the existence or not of *the* scientific method is a subject of considerable dispute. Reliable arguments exist to suggest that 'real-world' natural science does not proceed in the manner we would expect from a 'pure' reading of the positivist position. According to Bryman (1988:17):

"...it is misguided to believe that there is some absolutely definitive version of the nature of science. Philosophers of science disagree widely over what science comprises."

Blakie (1993:3) concurs:

"Philosophers now tell us that the common-sense view, of scientists making careful observations and conducting experiments which lead to scientific 'discoveries', is not only logically unsatisfactory but also does not reflect good scientific practice [and] it is no longer possible to provide *one* prescription for *the* scientific method."

Many definitions of 'positivism' exist, and there is clearly little agreement as to its precise definition. Such is the apparent confusion that Bryant (1985) wonders whether the term should be expelled from the vocabulary of the social sciences altogether. Positivism has dominated social science for many years, and for many writers is still regarded as the orthodox position, but the position has come under repeated and sustained attack in the battle for paradigm supremacy.

Paradigmatic beliefs are often held dear, and are for some akin to religious creed. The fundamental nature of these beliefs, and the fundamental differences between alternative positions has, unfortunately, led to those subscribing to different positions being treated with opprobrium. As a consequence:

"The word 'positivist', like the word 'bourgeois' has become more of a derogatory epithet than a useful descriptive concept, and consequently has been largely stripped of whatever agreed meaning it may once have had (Giddens, 1974: IX)"

Still, it is possible to discern some 'core characteristics' that reflect the essence of the position. As noted above, paradigmatic identity is delineated with reference to the three assumption axes of ontology, epistemology and methodology. Firstly, the ontological question.

2.4 The Tenets of Positivism

2.4.1 Ontological Tenets

Positivists are likely to subscribe to a *realist* ontological position. In this view, an objective reality does exist, and continues to go about its business irrespective of the interest we may have in it (Guba & Lincoln, 1989). For the realist, the status of the social world is identical to that of the natural world, or:

"The individual is seen as being born into and living within a social world which has a reality of its own. It is not something which the individual creates – it exists 'out there'; ontologically it is prior to the existence and consciousness of any single human being (Burrell & Morgan, 1979: 4)."

The positivist position is predicated upon a belief in *atomism.* That is, reality is composed of discrete, independent events which constitute the fundamental elements of the world. These elements of reality are ordered according to universal laws – simple relations or constant conjunctions that apply, without exception, across time and space (Blakie, 1993). Or, as Guba & Lincoln (1989: 85) explain:

"It is because of the existence of such driving laws that [positivist] science can hope to fulfil its prime directive – to predict and control. For if there is no order in nature there is no hope that personkind can manage or exploit nature in its own interest... Many of these underlying laws take the form of cause-effect [or if-then] relationships... [and] control requires that natural phenomena be managed – be

made to act in desired ways. For that to be possible it is necessary for nature itself to be arranged in if-then relationships."

Furthermore, the only reality is that which can be perceived by the senses. Or, conversely, that which is not amenable to the senses does not constitute concrete reality. This belief is expressed through the rule of phenomenalism, which states that: *"there is no real difference between 'essence' and 'phenomenon'"* (Kolakowski, 1993:11). This means that the nature of a thing in itself, its essence, is directly accessible to the senses and *is* as we perceive it to be. The distinction between the essence of a thing and its manifestation to us (the phenomenon) should be abolished. And so, 'disagreements over questions that go beyond the domain of experience are purely verbal in character' (ibid: 3) – these questions relate to superfluous concepts, and such concepts do not exist in reality. To the positivist, concepts such as 'soul' or 'spirit' are superfluous, and do not describe reality, as they are unobservable and lie beyond the realm of experience.

The positivist ontological position can be summarised thus:

"Positivism entails an ontology of an ordered universe made up of atomistic, discrete and observable events. This order can be represented by universal propositions or constant conjunctions. Only that which can be observed, i.e. experienced by the senses can be regarded as real and therefore worthy of the attention of science. Human activity is understood as observable behaviour taking place in observable, material circumstances. Social reality is viewed as a complex of causal relations between events which are depicted as an emerging patchwork of relations between variables. The causes of human behaviour are regarded as being external to the individual (Blakie, 1993: 94)."

2.4.2 Epistemological Tenets

An essential element of the positivist doctrine is the rule of nominalism, which states that: *"we may not assume that any insight formulated in general terms can have any real referents other than individual concrete objects"* (Kolakowski, 1993: 4). This means that "we have the right to acknowledge the existence of a thing... only when experience obliges us to do so (ibid: 5)."

Kolakowski (ibid, pp4-5) elaborates using the example of triangles. The sum of the angles in a triangle, according to most geometric schemes, is equal to two

right angles. The question then arises: But what does the statement actually refer to?

"Not to this or that triangular body, since there is no absolutely perfect triangle that meets all the requirements of geometry; nor can it refer, for the same reason, to all triangular objects. And yet it can hardly be said that geometry refers to nothing at all. Hence, our assertion must refer to 'the' triangle, pure and simple. But what is this triangle, which is to be found nowhere in nature? It has none of the physical characteristics we usually ascribe to bodies. For one thing, it is not localised in space. All its properties derive from the fact that it is a triangle and nothing else; we must acknowledge that it exists in some way, although it is an existence not perceived by the senses, accessible only to reflection."

The positivist is likely to reject the notion that our knowledge of 'the' triangle corresponds to something other than - something that exists separately from - particular triangular bodies. Knowledge is possible of only this or that triangle that we experience: of each distinct case of triangular body we experience. No existence is possible apart from the particular. Although it is profitable, and convenient, to make use of ideal type concepts or refined abstractions – such as the perfect triangle, or circle – these are human constructions only, and they do not exist in reality.

As a consequence of the nominalist rule, the positivist position demands a theoretically neutral observation language. That is, the language of science must not contain any descriptive terms that do not correspond to observable phenomena. In Blakie's (1993: 14) example:

"the concept of 'God' cannot be regarded as scientific as it is not possible to observe God, and statements such as 'God exists' or 'God does not exist' are meaningless because no observational evidence can have any bearing on them."

Similarly, and as we have already seen in relation to the rule of phenomenalism, terms such as 'soul' or 'spirit' are regarded as meaningless. For the positivist, theory-neutral descriptive terms correspond directly with individual, real objects. These terms, and assertions about the world constructed using them, are isomorphic to objective reality.

A fundamental tenet of the positivist position is that the foundation of all viable knowledge is sensorily apprehended reality (Giddens, 1974: 3). Sensorily apprehended phenomena are, if we have the tools, measurable. The belief that

knowledge resides in the observable and therefore measurable, together with the use of a theory-neutral observation language means that, for the positivist, statements of truth are possible. The truth or otherwise of a proposition is determined by reference to reality. In this way:

"...truth is any assertion, whether about entities or their relationships, that is isomorphic, that is, that stands in a one-to-one relationship to objective reality (Guba & Lincoln, 1989: 86)."

From the positivist perspective then, there is such thing as truth – and it is absolute. The truth about reality is divined through the senses. Perception of objects stands in a one-to-one relationship with the true nature of those objects. As regards knowledge therefore, the positivist maxim is likely to be:

> "*Empirical reality is the sole province of knowledge*" (Bryman, 1988).

Or:

> "*Only that qualifies as 'knowledge' which can in some sense, more or less directly, be related to a 'reality' immediately apprehended by the perceiver*" (Giddens, 1974: 2)

Another consequence of the phenomenalist and nominalist tenets of positivism is: "*the rule that refuses to call value judgements and normative statements knowledge*" (Kolakowski, 1993: 6). This rule is justified as follows (ibid: 5-6):

"...on the phenomenalist rule we are obliged to reject the assumption of values as characteristics of the world for they are not discoverable in the same way as the only kind of knowledge worthy of the name. At the same time the rule of nominalism obliges us to reject the assumption that beyond the visible world there exists a domain of values 'in themselves', with which our evaluations are correlated in some mysterious way."

Statements of value – for example, this or that is 'beautiful', is 'good', 'noble', 'unpleasant' or 'evil' – do not correspond to observable or testable qualities residing in objects themselves. Furthermore, normative statements – statements expressing the 'rightness' or 'wrongness' of a particular course of action – can not be derived from the observation of reality. Statements of this kind are human constructions, are not testable through recourse to empirical evidence, and are therefore arbitrary. Positivists are guided by "...the idea that judgements of value have no empirical content of a sort that renders them accessible to any tests of

their 'validity' in the light of experience (Giddens, 1974:3)" And so "...observation of the sensory environment has no bearing on the validity of value judgements or normative assertions (ibid)."

The practical implications of the position regarding values are two-fold, and are as follows (Bryman (1988:15):

"...first [there is a need] to purge the scientist of values which may impair his or her objectivity and so undermine the validity of knowledge. The second aspect of positivism's posture on values is to draw a sharp distinction between scientific statements on the one hand and normative ones on the other... While positivists recognise that they can investigate the implications of a particular normative position, they cannot verify or falsify the position itself."

Positivist knowledge is neutral, as Giddens (1974: 4) asserts:

"...social study is technical in character, and provides knowledge which is purely 'instrumental' in form. The findings of social investigations do not carry any consequent implications for the pursuit of values."

A final element in the positivist epistemological posture, and it is closely related to the position regarding values, concerns the relationship between the observer and the observed: the knower and the known. For positivists there is a clear distinction between the inquirer and the object of inquiry. It is possible to observe and measure phenomena in the world without disturbing them. According to Guba (1985: 82) "the inquirer is able to maintain a discrete distance from the object of inquiry, neither disturbing it nor being disturbed by it." This dualism between observer and observed is essential in obtaining legitimate knowledge of reality. As Guba and Lincoln (1989: 87) explain:

"...it is possible to maintain an objective, "exteriorised" posture, a dualism, with respect to the phenomenon being studied, and... it is possible to exclude, as part of this dualism, the values held by the inquirer or any other individual... It is this posture that provides a warrant for asserting that scientific data must be absolutely accepted, for if they were properly obtained, they are free of any possible taint of subjectivity, bias, or disjunctive values. Inquiry can, in short, be both objective and value-free."

A summary of the positivist epistemological position is supplied by Blakie (1993:94-95):

"In its *epistemology,* knowledge is seen to be derived from sensory experience by means of experimental or comparative analysis, and concepts and generalisations are shorthand summaries of particular observations. A correspondence is posited between sensory experiences and the objects of those experiences, and between observation statements and theoretical statements. Scientific laws are identical to empirical regularities (Blakie, 1993: 94-95)."

2.4.3 Methodological Tenets

As noted above, the idea of one definitive scientific method is flawed, and in fact, many conceptions of the way in which scientists go about their work exist. An essential tenet of positivism, though, is the doctrine known as *'the unity of the scientific method'*. This position is also known as *Naturalism,* which suggests that there can be a *natural* scientific study of people and society (Blakie, 1993). Essentially, the positivist belief is that the methods and procedures of the natural sciences are appropriate to the study of the social sciences (Bryman, 1988). For Giddens (1974: 4), this tenet is part of what is termed the 'positivistic attitude', and is summarised as follows:

"...the methodological procedures of natural science may be directly adapted to the study of social issues. Human subjectivity, volition and will pose no barrier to treating social conduct as an 'object' akin to objects in the natural world."

Kolakowski (1993: 7) offers a more complete explanation:

"[the unity of the scientific method thesis] ...expresses the belief that the methods for acquiring valid knowledge, and the main stages in elaborating experience through theoretical reflection, are essentially the same in all spheres of experience. Consequently we have no reason to assume that the qualitative differences between particular sciences come to anything more than characteristics of a particular historical stage in the development of science; we may expect that further progress will gradually eliminate such differences or even, as many authors have believed, will reduce all the domains of knowledge to a single science."

It should be noted here that it is possible to adopt the doctrine of naturalism whilst dissenting from the positivist position. Or, to subscribe to a naturalism based on a non-positivist view of science (Blakie, 1993).

A practical consequence of the unity of scientific method thesis (where that method is positivist), is that inquiry into the social world should aim at the

discovery of laws – or constant conjunctions between entities – of society. Again, in Giddens' (1974: 4) description of the positivistic attitude, there is a belief:

"That the outcomes or results of investigations into the social world can be formulated in the same terms as those of the natural world. The goal of investigation into the social world can and must be the formulation of laws or law-like generalisations."

Positivist inquirers go about these investigations using both inductive and deductive methodologies. Bryman (1988: 15) summarises the two routes to knowledge in turn. First, inductivism:

"...scientific knowledge is arrived at through the accumulation of verified facts. These facts feed into the theoretical edifice pertaining to a particular domain of knowledge. Thus theory expresses and reflects the accumulated findings of empirical research... The notion of science, and in particular scientific theories, being a compendium of empirically established facts is often referred to as the doctrine of *inductivism.* "

Second, deductivism:

"Scientific theories are seen by positivists as providing a kind of backcloth to empirical research in the sense that hypotheses are derived from them – usually in the form of postulated causal connections between entities – which are then submitted to empirical test. This implies that science is *deductive*, in that it seeks to extract specific propositions from general accounts of reality."

In both cases, it is possible to gradually improve our knowledge of the workings of reality. Of the two approaches, the inductive mode of inquiry has the longest history, and was developed initially by Francis Bacon. Russell (1961:528) communicates Bacon's preference for the inductive method, as opposed to the deductive, in this way:

"He valued his method as showing how to arrange the observational data upon which science must be based. We ought, he says, to be neither like spiders, which spin things out of their own insides, nor like ants, which merely collect, but like bees, which both collect and arrange. This is somewhat unfair to the ants, but it illustrates Bacon's meaning."

The deductive method was proposed by Karl Popper, who, whilst agreeing with the positivist ontological position, denied the possibility of 'pure observation' or of approaching nature without some 'frame of reference' or 'frame of expectations'. Popper argued that observation is always selective. Therefore...

"...rather than wait for regularities to impose themselves on us from our observations, we must actively impose regularities upon the world. We must jump to conclusions, although these may be discarded later if observations show us that they are wrong (Blakie, 1993: 25)"

For Popper, knowledge accumulation is a process of trial and error, of conjecture and refutation (ibid). The processes of inductivism and deductivism lead to hypothesis *verification* and *falsification* respectively.

For positivists, as described above, the truth or falsity of a statement can be ascertained through direct comparison with the real world. In the process of verification we can know absolutely what truth *is*. For the falsificationists we may only know what truth *is not*. In either methodological approach the progress and growth of knowledge is a cumulative process, in which new insights are continually added to the existing stock of knowledge, and false hypotheses are eliminated (Burrell & Morgan, 1979). The positivist methodology is at root interventionist. Guba & Lincoln (1989: 89) summarise the positivist response to the methodological question thus:

"...inquiry must be mounted in ways that strip the context of possible contaminating influences (confounding variables) so that "the way things really are" and "the way things really work" can emerge – an *interventionist* methodology. Structuring the inquiry so as to be able to discover (or test presumptions about) causal mechanisms is especially important. The ultimate pragmatic criterion of the methodology is that it must lead to successively better means for predicting and controlling phenomena. The key process is *explaining*: making clear the cause or reason for something."

A final component of positivist methodology concerns the applicability of findings to other locations in time and space. As the above suggests, the positivist endeavour is concerned, in the first instance, with the search for universal laws. Laws – of society or of nature – that apply, without exception, across time and space. The existence of such laws is predicated upon the ontological doctrine of atomism. The primacy of laws in positivism means that the design of positivist inquiry is based upon nomothetic methodologies; and "the nomothetic approach... lays emphasis on the importance of basing research upon systematic protocol and technique (Burrell & Morgan, 1979:6)." With respect to research design, positivists are likely to pay strict attention to concepts such as construct validity, internal and external validity and reliability. Such measures serve to increase confidence in the potential for generalising findings to other spatio-temporal

locations. More will be said about these measures in Section 2.11, when the criteria for judging the present research are discussed. The description of the positivist position concludes with a summary of its essential tenets, which are contained in Table 2.1 overleaf (from Lincoln & Guba, 1985 and Bryman, 1988).

Table 2.1 – A *Summary of the Positivist Position*

Ontology	
Image of social reality?	Reality is single, tangible, fragmentable and apprehendable. It is static and external to the actor.
Possibility of causal linkages -	There are real causes, temporally precedent to, or simultaneous with their effects.
Epistemology	
What is the nature of knowledge?	Verified hypotheses established as facts. Non-falsified hypotheses are probable facts or laws. Findings are true.
What is the relationship between the knower and the known?	The knower and known are independent – a dualist, objectivist position.
How is knowledge accumulated?	Accretion – "building blocks" adding to the "edifice of knowledge"
Methodology	
The aim of inquiry -	To explain, predict and control.
How do we go about finding things out?	Experimental methods, manipulative; verification, falsification of hypotheses; mainly quantitative methods.
The role of values in research -	Inquiry is value-free. Influence of values denied.
The possibility of generalisation, the scope of findings –	Time – and context-free generalisations are possible. Nomothetic statements are possible.
Research strategy –	Structured.
Quality judgement criteria –	Benchmarks of 'rigour' : internal and external validity, reliability and objectivity.
Relationship between theory/concepts and research -	Confirmation.

2.5 The Non-Positivist Tradition

The non-positivist family of paradigms is broad and contains many variants. It is a less than unified arena (Denzin & Lincoln, 1998). These alternatives includes such specific paradigms as 'Interpretivism' (eg Burrell & Morgan, 1979), and 'Feminism' (eg Olesen, 1994). Inter-paradigmatic differences exist within the non-positivist family, but together they exhibit one common trait: a rejection of the fundamental tenets of the positivist paradigm.

Non-positivism is an umbrella term used to group many paradigms, which share essential characteristics, for the purpose of rendering a generic description possible. These paradigms are non-positivist (and sometimes vehemently anti-positivist) at the level of fundamental assumptions and beliefs, but the precise way in which these assumptions are configured and 'operationalised' into inquiry practice varies. Non-positivism here is similar to what Lincoln & Guba, in 1985, called the 'Naturalistic' paradigm. Currently these authors prefer to label their non-positivist approach to inquiry 'Constructivism' – and constructivism's design and place in the overall paradigmatic landscape is clear (eg Guba & Lincoln, 1994). It appears that in 1985 the non-positivist landscape was less precisely delimited than today. Lincoln & Guba (1985: 10) were evidently aware of, and anticipating the shifting terrain, noting that:

"...our ideas are very much in evolution; it will not be surprising to *us* to find ourselves saying different (and, we hope, more sophisticated) things a year or two hence."

As, indeed, they did. Then the Naturalistic paradigm had many aliases, for example the postpositivistic, ethnographic, phenomenological, subjective, case study, qualitative, hermeneutic and humanistic (Lincoln & Guba 1985). The reason the naturalistic paradigm had so many guises was because:

"...the persons who profess to practice it tend to take different views of what it implies, in the same way that persons who profess to be Christians may nevertheless prefer to be known as Catholic, Orthodox, Lutheran, Episcopalian, Presbyterian, Adventist, Fundamentalist, Baptist, and so on. They hold to these more specific labels in an attempt to differentiate their particular doctrines from those of others...(ibid: 8)."

Just as 'Christians' included Catholics and Presbyterians etc., in this thesis 'Non-positivists' include Interpretivists and Constructivists etc. Non-positivism is a broad church.

As was the case with positivism (Section 2.4), the production of a definitive statement as to the tenets of non-positivism is difficult in the extreme. Non-positivism is used here as a cover term, and non-positivist paradigms are grouped together in consideration of economy constraints. It is a somewhat artificial, but necessary grouping. This description of non-positivist tenets will not capture the idiosyncrasies or finer nuances of particular positions, and it does not aim to do so. The description below is generic. The aim is to describe the tenets commonly shared by non-positivist paradigms - to provide a description of the beliefs which together describe 'what it means to be a non-positivist'. First, the ontological tenets.

2.6 The Tenets of Non-Positivism

2.6.1 Ontological Tenets

The non-positivist paradigm is predicated upon a *relativist* ontology (Guba & Lincoln, 1989). Social reality is, from this perspective, socially constructed. It is "...regarded as the product of processes by which social actors together negotiate the meanings for actions and situations; it is a complex of socially constructed meanings (Blakie, 1993:96)."

Implicit in the above is the possibility of multiple co-existent realities. Non-positivists are therefore likely to advocate a pluralist ontology. The social foundations of these realities suggests that they are also subject to change, or are in a perpetual state of flux. The fluid element of social reality is captured in the following (ibid: 36):

"...people are constantly involved in interpreting their world – social situations, other people's behaviour, their own behaviour, and natural and humanly created objects. They develop meanings for their activities together, and they have ideas about what is relevant for making sense of these activities."

At issue here is the non-positivist denial of the existence of a single 'objective' reality, which exists independently of an inquirer's interest in it. Instead there exist multiple realities that are constructed through iterative processes of interaction, interpretation and negotiation. Realities are the product of shared meaning. Accordingly, reality is that which is *commonly assented to* (Guba & Lincoln, 1989). As the same authors (1989:143) assert:

"...constructions are, quite literally, *created realities.* They do not exist outside of the persons who create and hold them; they are not part of some "objective" world that exists apart from their constructors."

And, as Blakie (1993:96) surmises:

"...*social reality* is not some 'thing' that may be interpreted in different ways; it is those interpretations."

2.6.2 Epistemological Tenets

A direct consequence of the non-positivist ontological position is that the ontology-epistemology distinction is eradicated (Guba & Lincoln, 1989). For the non-positivist, knowledge is the product of social interaction, of negotiation; it is shared meaning, and is created interactively. Just as 'reality' is socially constructed, so too is knowledge of that 'reality'. Moreover, they are constructed in the same instant, or through the same process. The knower and the known are not independent entities. Rather, they are mutually created. It is the non-positivist belief that 'reality' does not have any existence independent of our inquiry as to its nature. Since 'reality' and 'knowledge of reality' are created simultaneously, separation of the ontological and epistemological questions becomes impossible, or, at least, non-sensical.

Non-positivist epistemology denies the possibility of a dualism of inquirer and inquired-into; of the knower and the known. It is a *monist, subjectivist* epistemology in which:

"...an inquirer and the inquired-into are interlocked in such a way that the findings of an investigation are the literal creation of the inquiry process (Guba & Lincoln, 1989:84)."

And again (Guba, 1985:85):

"The inquirer and the "object" of inquiry interact to influence one another; especially is this mutual interaction present when the "object" of inquiry is another human being."

Recognition that a plurality of socially constructed realities exist means that the non-positivists' endeavour is concerned with understanding the individual or shared meanings with which social actors make sense of their predicaments, and undertake purposeful activity in the world. In this view:

"Human experience is characterised as a process of interpretation rather than sensory, material apprehension of the external physical world, and human behaviour depends on how individuals interpret the conditions in which they find themselves... The social researcher enters the everyday world in order to grasp [these] socially constructed meanings (Blakie, 1993:96)."

Understanding the ways in which meanings become shared, or in which a particular view becomes 'commonly assented to' is also an essential focus of study for the non-positivists. How, as social actors, we may come to perceive the social world in an apparently objective way is the subject of Berger and Luckmann's '*The Social Construction of Reality*' (1967). Their task was to explicate:

"...how and why subjective meanings (externalisation) become objective facticities (objectification) which then 'act back' as they socialise present and future generations (internalisation) (Willmott, 1990: 50)."

A further epistemological (or axiological) tenet is that knowledge and inquiry are necessarily value-bound. This tenet is again a consequence of the relativist ontological position. To the non-positivists it is clear that empirical inquiry can never be value-free, and that 'facts' can never be theory-neutral (and both Kant's and Kuhn's influence are recalled). This is because inquiry is a human enterprise:

"Inquirers are human, and cannot escape their humanness. That is, they cannot by an act of will set aside their own subjectivity, nor can they stand outside the arena of humanness created by other persons involved... values cannot be ignored; their very influential role in all inquiry must be acknowledged (Guba & Lincoln, 1989:88)."

Guba (1985:85) lists five ways (and suggests there may be more) in which inquiry is value-bound. These are:

1. Inquiries are influenced by inquirer values as expressed in the *choice of the problem* and in the *framing, bounding, and focusing* of that problem.

2. Inquiry is influenced by the choice of *substantive paradigm* that guides the investigation into the problem.

3. Inquiry is influenced by the choice of *inquiry paradigm* that guides investigation into the problem.

4. Inquiry is influenced by the *values that inhere in the context*: social and cultural norms.

5. With respect to points 1 to 4 above, inquiry is either *value-resonant* (reinforcing or congruent) or *value-dissonant* (conflicting).

Finally we come to the non-positivist understanding of 'truth'. Truth, from this perspective, is a social phenomenon. 'Truth' is constructed, and is variable. 'Absolute truth', like 'objective reality', is illusory and transient. Although it is possible to reach agreement as to the 'truth' at this point, it is probable (or at least possible) that alternative 'truths' may in the future convince us of our hitherto naivete, and lead inquirers to substitute one 'truth' for another. Guba & Lincoln (1989:86-87) express the non-positivist attitude as follows: 'truth' is defined as...

"...the most informed and sophisticated construction on which there is consensus among individuals most competent (not necessarily most powerful) to form such a construction. It is dubious that the constructivist [non-positivist] paradigm requires a term like truth, which has a final or ultimate ring to it. Multiple constructions that meet the "most informed and sophisticated" criterion can exist side by side, a state of affairs well illustrated by the continuing differences of opinion among young vanguard thinkers in every field, whether it be economics or physics. Certainly any construction is continuously open to alteration, however it may be treated at some point in time regarding its "truth."

To conclude this discussion of the non-positivist paradigm, the question of research methods is addressed.

2.6.3 Methodological Tenets

It is likely that non-positivists will reject the positivist version of the 'unity of the scientific method' thesis, as described in section 2.4.3. The non-positivist attitude is to deny the suitability of positivist methodology to the study of the social world. Non-positivism rejects methodological monism, suggesting instead that fundamental differences in the nature of the physical and social domains mandate

the employment of divergent study methodologies (including inquiry paradigms themselves). Giddens (1974:79 quoted in Blakie, 1993: 36) articulates the posited fundamental difference between the two domains as follows:

"The difference between the social and natural world is that the latter does not constitute itself as 'meaningful': the meanings it has are produced by men in the course of their practical life, and as a consequence of their endeavours to understand or explain it for themselves. Social life – of which the endeavours are a part – on the other hand, is *produced* by its component actors precisely in terms of their active constitution and reconstitution of frames of meaning whereby they organise their experiences."

An essential difference between the 'natural' and the 'social' is that, "in short, the social world is already interpreted before the social scientist arrives (Blakie,1993: 36)." The non-positivists' aversion to the search for societal laws (or a denial of their existence) is a key reason for rejecting the suitability of the positivist method. Hence, arguments against a positivist study of the social often:

"...derive from a view that any social uniformities are not the result of the same processes that produce regularities in physical or biological phenomena. They are seen to be the result of actions and decisions of human beings and can, therefore, be changed. It is claimed that not only do general laws of social life not exist but that even if they did their complexity, and the inappropriateness of experimental or mathematical procedures for their investigation, make it impossible to discover them. And even if they did exist and could be discovered, predictions based on them are likely to be confounded by the capacity of human beings to take such information into account in their actions (Blakie, 1993:46)."

In sum, and as regards the unity of scientific method, the non-positivists:

"refuse to view the pattern set by the exact natural sciences as the sole and supreme ideal for a rational understanding of reality. Many of them emphasise a contrast between those sciences which, like physics or chemistry or physiology, aim at generalisations about reproducible and predictable phenomena, and those which... want to grasp the individual and unique features of their objects (von Wright, 1993:11).

Non-positivist methodology is concerned, in the first instance, with the search for *understanding*. It is pre-occupied with the task of understanding and describing the way in which social actors construct their worlds, and the frames of meaning with which they operate. It is a methodological stance that values empathy with an inquiry's 'subjects' – or participants. There is an explicit commitment to understanding events or action 'through the eyes of' those being studied.

Non-positivist methodology is directed at furthering *ideographic* understandings. The ideographic approach...

"...is based on the view that that one can only understand the social world by obtaining first-hand knowledge of the subject under investigation. It thus places considerable stress upon getting close to one's subject and exploring its detailed background and life history. The ideographic approach emphasises the analysis of the subjective accounts which one generates by 'getting inside' situations... The ideographic method stresses the importance of letting one's subject unfold its nature and characteristics during the process of investigation (Burrell & Morgan, 1979:6)."

The above implies that the non-positivist inquiry requires an inductive, or *emergent* research design. Because researchers are concerned with understanding a research context from the inside, and with what is important to those studied, the imposition of a prior theory or conceptual structure is likely to obscure the very idiosyncrasies of the research domain the inquiry is interested in. For this reason, the non-positivists seek to 'construct' findings from data – that is, to build theory that is grounded in the research data (e.g. Glaser & Strauss, 1967). The design of non-positivist inquiry...

"...can never be fully articulated until after the inquiry has been declared complete, because the design must emerge as salient issues emerge from research respondents and coparticipants; [Also] ...theory must arise from the data rather than preceding them; [and] ...methods must be hermeneutic and dialectic... (Lincoln, 1990: 78)."

The non-positivist concern with understanding the peculiarities of individual settings, and the commitment to description, has led to a preference for qualitative methods of inquiry. The essential tenets of the non-positivist position are summarised in table 2.2 on the following page (from Lincoln & Guba, 1985 and Bryman, 1988).

Table 2.2 – A *Summary of the Non-Positivist Position*

Ontology	
Image of social reality?	Realities are multiple, local, constructed and holistic. Social reality is processual and socially constructed by actors.
Possibility of causal linkages -	All entities are in a state of mutual simultaneous shaping – it is impossible to distinguish causes from effects.
Epistemology	
What is the nature of knowledge?	Individual reconstructions coalescing around consensus. Findings are created.
What is the relationship between the knower and the known?	The knower and known are interactive, inseparable – a monist position.
How is knowledge accumulated?	More informed and sophisticated reconstructions – vicarious experience.
Methodology	
The aim of inquiry -	Understanding, reconstruction.
How do we go about finding things out?	Field based research, mainly qualitative methods.
The role of values in research -	Inquiry is value-bound
The possibility of generalisation, the scope of findings –	Only time- and context-bound working hypotheses are possible. Ideographic findings.
Research strategy –	Unstructured.
Quality judgement criteria –	Trustworthiness and authenticity. Credibility, transferability, dependability, confirmability.
Relationship between theory/concepts and research -	Emergent.

2.7 Paradigm Choice in this Research

This research is conducted from a non-positivist perspective. The structure of the research is founded upon non-positivist assumptions – in terms of the conduct of field work, the methods of data analysis and the mode of reporting results. The rationale informing the paradigm selection decision consists of two complementary arguments. The first concerns the specific nature of the problem in which the inquiry is interested; the second concerns the aptness or otherwise of the different paradigms in the study of the social, organisational domain. Each argument is taken in turn below.

2.7.1 The Nature of the Problem

As Chapter 1 described, this research began when the author was selected by interview to fulfil a research brief. It soon became clear that this brief was not a blueprint to the research, that it was a necessary element in the process to secure research funding, and that, in all likelihood, the precise research focus would shift over time.

The original research brief was headed 'The Use of Information Technology in Marketing and Sales', and it was envisaged that the researcher would employ Systems Thinking theory (eg, Checkland, 1990; Beer, 1985; Senge, 1990) and methodology (eg Checkland's (1990) Soft System Methodology) in order to investigate the use of IT in the Marketing and Sales operations of one or more organisations. Another important element of the research background was the recent organisational phenomenon of Business Process Redesign (BPR) – as discussed at length in Chapter 1. One of the organisations pioneering the implementation of BPR was Xerox (UK) Ltd. Xerox were understood to be a 'holistic, process oriented' organisation, and such organisations were few in number. Furthermore, the probability of gaining high level (and other level) access to Xerox was high since a) the researcher's supervisor was until very recently a part of Xerox senior management in both the USA and UK, and b) the project was part-funded by Xerox.

One broad research question suggested by the contents of the research brief was, therefore: how do process oriented organisations use IT in their Marketing

and Sales operations? The broad aim of the research inquiry is to seek and then relate an understanding of how Xerox, a holistic, process oriented organisation, use IT in Marketing and Sales activity.

The precise research focus did indeed shift over time, and then shift again. The focus sharpened to a consideration of Xerox activity in Face to Face Customer Engagement operations – specifically, how IT was used in the Face to Face Selling Process. This sharpening occurred immediately prior to entering the field in an attempt to render the field of interest 'manageable', and in recognition of the time and resource constraints binding the project as a whole. In hindsight, this sharpening amounted to an attempt to enforce arbitrary boundaries upon a field of interest exhibiting no such boundaries (as the results Chapters of this thesis explain).

During the field work stage of the project, the focus then widened to incorporate other channels of Customer Engagement – specifically, Telebusiness and Ebusiness. Xerox's Face to Face Selling Process and operations could not be understood in isolation; because the same process structured work in other channels of Customer Engagement, and because the effectiveness of Face to Face channel operations was found to depend on the simultaneous effectiveness of the other Customer Engagement channels. Xerox employ an holistic approach to Customer Engagement channel management. Furthermore, it then became clear that these three Customer Engagement channels could not be understood fully without a complementary understanding of Xerox's overall strategic context.

The Systems Thinking element of the initial research 'design' was gradually de-emphasised (although, as Chapter 1 describes, an understanding of BPR and business processes is facilitated through an appreciation of Systems Thinking principles). Two themes - process orientation and the use of IT – remained constant throughout the research.

As the reader will recall from Chapter 1, very little in the way of literature or theory existed to guide the research effort as it was initially conceived – if, indeed, such literature and guidance is thought helpful or necessary (see later). Research into the use of IT in Marketing and Sales operations by a holistic, process oriented

organisation was therefore considered a valuable and original project. The research inquiry is exploratory. It is not hypothesis testing research.

Several factors pertaining to the nature of the research problem led to the researcher selecting the non-positivist paradigm as grounding for this inquiry. These are:

- **Little is known about the subject of inquiry.**

This is exploratory research. As the reader will have gathered from the above discussion of positivist and non-positivist methodological tenets, the non-positivist paradigm is better suited to this kind of research. Extant theory and *a priori* concepts are not required in the search for understanding of a particular domain. Whereas positivist inquiry requires concepts and conceptual relationships to be specified prior to the collection of data (about those concepts and relationships), the non-positivist preference is for concepts, and any conceptual relationships, to be grounded in the data collected. On the one hand, hypotheses dictate the site of, and kinds of data sought – on the other, concepts emerge from the data collected. For exploratory research like this, the latter – non-positivist – approach is preferred.

- **The subject of inquiry may shift over time.**

Because the research is exploratory, the underlying inquiry paradigm must support an emergent, unstructured research strategy. The researcher can not know in advance what concepts will emerge from the data collected. The inquiry begins with a broad area of interest under consideration (IT, the Selling Process and Sales Operations, Process Orientation), but what is important within this area is unknown. The researcher may find that the precise focus of inquiry is shifting (as in practice it did), as participants describe what is significant to them. Hence, the data collection strategy must be flexible. The researcher is interested in understanding how Xerox operate, and enters the field with little idea of how this may be. A pre-specified, rigid design is therefore inappropriate. Such a design does not allow for the emergence of concepts. The non-positivist approach recognises the need for, and advocates the value of such flexibility.

- **It is inquiry into a single case.**

At the outset of the project, it was known that access to one case site would be available. This site was Xerox's headquarters in the UK, and it was anticipated that access to other UK geographical sites would be possible. It was thought that Xerox were a 'special' organisation in terms of its organisation by process. Xerox were understood to be a Holistic, Process Oriented Organisation. The initial research problem comprised three elements: IT, Marketing and Sales and Process Orientation. The research sought understanding of these three elements in a specific, and unique context. The early research focus was upon the use of IT in Marketing and Sales *by Xerox*. Comparison with other cases (other organisations) was thought feasible, if it was deemed necessary. But the inquiry began, and in the event was limited to, a specific interest in one organisation. In short, the inquiry began with the search for ideographic understanding. Again, as seen from the above discussion of paradigmatic tenets, the non-positivist option is clearly better suited as the framework for such an inquiry.

In sum, the nature of the research problem suggests that the non-positivist paradigm is better suited to providing intellectual foundation for this inquiry. The arguments above rest on the superiority of the non-positivist paradigm *vis a vis* the positivist alternative, in relation to the research problem.

The second argument informing paradigm choice for this project relates to the researcher's views as to the 'unity of the scientific method' or 'naturalism' thesis as discussed in sections (2.4.3 & 2.6.3). The question is: which paradigm is appropriate to the study of the social world?

2.7.2 Research in the Social Domain

The unity of the scientific method thesis states that the scientific method is equally appropriate to the study of all spheres of inquiry. The scientific method is the best method for studying the world of nature and the world of human society. A single science is appropriate to all domains of knowledge (Kolakowski, 1993). In the discussion of section 2.4.3, Giddens (1974: 4) summarised the naturalist position thus:

"...the methodological procedures of natural science may be directly adapted to the study of social issues. Human subjectivity, volition and will pose no barrier to treating social conduct as an 'object' akin to objects in the natural world."

This author subscribes to neither the positivist, nor its antithesis - the non-positivist - naturalist thesis. In the researcher's view, the human social world is different in fundamental ways to the world of inanimate nature. These differences follow directly from the 'subjectivity, volition and will' exhibited by humans; qualities not exhibited by nature. The social world is the human world, and its inherent humanness is inescapable. The approach taken to studying the social world must therefore take into account this humanness. In the positivist paradigm this humanness is ignored, or at least suppressed – in the non-positivist alternative it is recognised and valued.

The paradigm most suited to the characteristics of the domain of inquiry has been chosen. No attempt is made to criticise the positivist paradigm itself – as this task is undertaken many times elsewhere (eg, see Bryant, 1985; Guba & Lincoln, 1985). Rather, the author has taken a reasoned decision based on a judgement as to the aptness or otherwise of each paradigm to the study of the social world. The non-positivist paradigm is, in this author's view, simply better suited to this kind of inquiry. The author subscribes, at this time and for the duration of this project, to the non-positivist ontological/ epistemological position that social reality and knowledge are socially constructed phenomena.

The selection of non-positivism as the philosophical grounding for this research has been justified. From here discussion moves to the selection of study methods. The following section deals with the question of whether researchers are, having identified their inquiry paradigm of choice, then bound to employ specific research methods. It seeks to answer the important question: Does the choice of inquiry paradigm influence the researcher's choice of research tools?

2.8 Methodological Consistency

The question of whether method choice is inexorably linked to paradigmatic allegiance is contentious, and two conflicting arguments exist as to its resolution. On the one hand, there are those who believe that in adopting a particular paradigmatic posture, researchers are consequently obliged to employ research

methods consistent with that paradigm's epistemological principles (eg, Guba, 1985). These authors believe that paradigmatic choice determines method choice – and vice versa. Epistemological principles carry with them implications for what can be taken as warrantable knowledge. Therefore, inquiry aimed at securing such knowledge must employ epistemologically consistent methods. Likewise, the use of particular methods must provide an indication as to the study's overall paradigmatic identity.

The alternative position in this debate is that methods and paradigms are distinct. There is no correspondence between epistemological position and method employed. Rather, methods are chosen on the basis of their strengths and weaknesses in studying particular types of problem. The researcher is free to select and combine methods as s/he feels fit, depending on which method(s) seems best suited to the problem under investigation. The choice of method is essentially a question of technique, rather than epistemology.

Bryman (1988) considers the question of epistemology or technique in the context of qualitative versus quantitative research. Quantitative and qualitative research are sometimes treated as synonymous with positivist and non-positivist research respectively, and Bryman (1988: 105,106) summarises the epistemology versus technique debate thus:

"The view that quantitative and qualitative research constitute different epistemological positions would seem to imply that researchers formulate their views about the proper foundation for the study of social reality and choose their methods of investigation in the light of that decision. This would imply that a researcher's personal commitment to the view that the natural sciences provide the only acceptable basis for generating knowledge [the unity of the scientific method thesis] would mean that his or her approach to conducting an investigation, as well as the methods of data collection, will be chosen in this light... Alternatively, it might be suggested that a researcher who chooses to carry out a survey, for example, has to recognise that his or her decision to use that method carries with it a train of epistemological implications which need to be recognised at the outset, in case the selection does not fit with the researcher's broader intellectual proclivities.

"...The alternative standpoint is to suggest that quantitative and qualitative research are each appropriate to different kinds of research problem, implying that the research issue determines (or should determine) which style of research is employed."

Bryman's (1988) concern is to provide justification for combining quantitative and qualitative research. He therefore prefers the 'technique' argument, suggesting

that (p118) "...the differences between the two research traditions are less precise than writers who emphasise epistemological issues suggest."

The author agrees with Bryman's (1988) contention that the epistemological differences between qualitative and quantitative methods have been overstated. This exaggeration is due to the perceived (and in this author's view erroneous) correspondence between quantitative methods and the positivist paradigm, and qualitative methods and the non-positivist paradigm. No such equity between paradigm and method exists. An inquiry paradigm constitutes the philosophical framework within which research is practised. Methods – quantitative or qualitative – are devices employed by researchers in collecting evidence. A particular inquiry is defined and distinguished first and foremost by its underlying paradigmatic principles, and not by the particular method employed in data collection. As stated above, the paradigmatic axioms guiding research are not always made explicit by authors. The assumptions framing a research effort may be tacit, or implicit – but they exist nonetheless.

It is certainly true that research methods have strengths and weaknesses, and that some methods are more suited to the study of particular kinds of problem than others. But the use of quantitative or qualitative methods does not necessarily imply that an inquiry is based on positivist or non-positivist principles. For some investigations, a combination of quantitative and qualitative methods is entirely appropriate.

At issue is the requirement for individual research projects to remain *Methodologically Consistent*. The methodology of an inquiry consists of the paradigmatic axioms on which it is founded (ontology, epistemology and methods), its mode of reporting, and the criteria by which it will be judged successful or otherwise. Because an inquiry is distinguished first by its underlying paradigmatic principles, being methodologically consistent means that the researcher must employ particular methods in a manner consistent with those principles, and undertake research with appropriate judgement criteria in mind.

It is not methods *per se* that are consistent with particular paradigms: the experiment is not *in and of itself* a positivist method, and the unstructured interview (see below) is not *in and of itself* a non-positivist method. Rather it is

the *way* in which methods are put to use that is important. Particular methods may sit more or less easily with different paradigmatic frameworks, but there is no exclusive correspondence between a method and a particular paradigm, nor vice versa. It is likely that the non-positivist researcher will choose to employ a method such as participant observation, because this method fits well with the non-positivist desire for data that is 'grounded' in 'natural' settings. But this method could also be used in a positivist, hypothesis-testing study. A single method may have many uses, and this is because methods are not ends in themselves:

"...qualitative methods are stressed within the naturalistic [non-positivist] paradigm not because the paradigm is antiquantitative but because qualitative methods come more easily to the human-as-instrument. The reader should particularly note the absence of an antiquantitative stance precisely because the naturalistic and conventional paradigms are so often – mistakenly — equated with the qualitative and quantitative paradigms, respectively. Indeed, there are many opportunities for the naturalistic investigator to utilise quantitative data – probably more than are appreciated. But it is certainly true that, in practice, naturalistic investigators lean strongly on qualitative approaches (Lincoln & Guba, 1985: 198, 199)."

Lincoln & Guba's (1985) advice concerning the conduct of Naturalistic inquiry contains an implicit demand for methodological consistency. To do naturalistic research, the inquirer must... (p251)

"...adopt the stance suggested by the axioms of the naturalistic paradigm. These axioms form a synergistic set, and must be adopted as a set. Mix-and-match strategies are not allowed, nor are accommodations or compromises. We do not require the investigator to *commit* him- or herself to these axioms as a set of personal basic beliefs; we do require that the inquiry be carried out in ways that are consistent with them."

Naturalistic inquiry, they state...

"...is defined not at the level of *method* but at the level of *paradigm*. It is not crucial that naturalistic inquiry be carried out using qualitative methods exclusively, or at all (although mounting naturalistic inquiry by purely quantitative means stretches the imagination). Conversely, it is quite possible to carry out conventional [positivist] inquiry using qualitative methods exclusively (although to do so would seem incredible to some). But the inquirer who does not adopt, however provisionally, the *axioms* of the naturalistic paradigm cannot be said to be *doing* naturalistic inquiry."

This is the approach adopted by the author of this research. The author aims for methodological consistency. In selecting the paradigmatic position from which the

research endeavour is mounted, the researcher also commits to the use of research methods, the reporting of results and the judgement of success in a manner consistent with that position – for the duration of the project. Quantitative or qualitative methods may be better suited to study of a particular problem – and the methods employed in a particular study may be chosen in that light – but the selected methods must be put to use in a manner consistent with the axioms which frame the project as a whole.

2.9 Method Selection in this Research

The particular method/s used in this research are chosen on the basis of their aptness in apprehending the particular problem (and problem domain) under investigation, and they are to be employed in a methodologically consistent manner – that is, in a manner consistent with the non-positivist framework underpinning the project as a whole. The non-positivist attitude to method selection is summarised by Shwandt (1990: 272) as follows:

"Unlike scientific [positivist] methodologies, constructivist [non-positivist] methodologies are guided by the ideal of fidelity to subject matter (rather than primacy of method). That is, they claim no special status for a particular way of investigation, and rather than impose a general set of methodological principles on all forms of experience, the constructivist will adapt both designs and method of investigation to the nature of the phenomena at hand."

In this research the method of choice is the Case Study. As demonstrated below, the case study method is variously defined. It is defined differently in accordance with the paradigmatic preference (stated or implicit) of the definition's author. An approach to case study research is required that is consistent with the non-positivist paradigmatic identity of the project.

2.9.1 The Case Study Method

According to Yin (1994) the case study is but one way of doing research; it is one research strategy amongst many. Yin considers the case study to be distinct from other research strategies (eg the survey or experiment), and that each research strategy "is a different way of collecting and analysing empirical evidence, following its own logic (Yin, 1994: 3)." Viewing the case study as a distinct

research strategy, which follows its own logic, has practical implications for the design, data collection, analysis and reporting phases of a research project.

Hammersley (1992: 184) recommends that the case study be defined in less 'complete' terms; as "one case selection strategy among others; the others being experiment and survey." In this author's view, each research strategy involves the selection of cases to be studied, where the term 'case' refers to (ibid: 184):

"..the phenomenon (located in space/time) about which data are collected and/or analysed, and that corresponds to the type of phenomena to which the main claims of a study relate."

Furthermore, Hammersley is of the view that all research strategies face the same methodological issues, and does not believe that "case studies display a distinctive logic that sets them apart from surveys and experiments."

In Yin's (1994) view, choosing to do case study research involves associate decisions about how cases are selected, what kinds of data are collected and in what ways, how those data are analysed and how the subsequent results are reported. In contrast, Hammersley's conception limits the case study definition to the issue of case selection in any research design.

These authors agree that the case study differs in important ways from alternative approaches to research. Both authors also believe that it is, in principle, possible to use each strategy in pursuit of the same research problem. The selection of research strategy is contingent on the *appropriateness* of that strategy – its particular strengths and weaknesses – to the problem under investigation. In Hammersley's terms (1992: 185), each strategy:

"...might often be usable to pursue the same research problem, though they would have varying advantages and disadvantages, depending on the purposes and circumstances of the research."

Yin (1984: 3) observes that researchers were once taught to regard case studies as appropriate for the exploratory phase of an investigation, that surveys were limited to description, and that experiments served our purposes for explanatory research or to uncover causal connections. This hierarchical view of the various research strategies is, Yin explains, a common misconception:

"The more appropriate view of these different strategies is a pluralistic one. Each strategy can be used for all three purposes – exploratory, descriptive, or explanatory. There may be exploratory case studies, descriptive case studies, or explanatory case studies."

In selecting a research strategy, the researcher must avoid what Yin calls 'gross misfits' – situations in which the researcher plans to employ a particular strategy when another is really more appropriate. For Yin, three conditions distinguish and determine the appropriateness of each research strategy. They are:

1. *the type of research question posed,*
2. *the extent of control an investigator has over actual behavioural events*, and
3. *the degree of focus on contemporary as opposed to historical events.*

These three conditions combine to form the decision table below (from Yin, 1994: 6):

Table 2.3 - *Research Situation and Research Strategies*

Strategy	Form of research question	Requires control over behavioural events?	Focuses on contemporary events?
Experiment	How, why	Yes	Yes
Survey	Who, what, where, how many, how much	No	Yes
Archival analysis	Who, what, where, how many, how much	No	Yes/No
History	How, why	No	No
Case Study	How, why	No	Yes

This research seeks to answer 'how' type questions, (*how* do Xerox use IT in Customer Engagement operations), does not require control over behavioural events and focuses on how Xerox operate as the research is carried out – i.e. *now*. The relative advantages and disadvantages of the different research strategies are demonstrated by Hammersley (1992: 186) in terms of likely trade-offs. In choosing between the case study and the survey researchers are advised that:

"...the choice of case study involves buying greater detail and likely accuracy of information about particular cases as the cost of being less able to make effective generalisations to a larger population of cases... As the number of cases investigated is reduced, the amount of detail that can be collected on each case is increased, and the chances of there being error in the information probably reduces too."

In comparing the case study strategy with the experiment, the trade-off is between the potential for control over variables of interest, and the likely level of reactivity. Thus (ibid: 192):

"The case study provides us with information that is less likely [than that derived from experiment studies] to be affected by reactivity and therefore is more likely to be ecologically valid; but it does so at the cost of making it more difficult to come to convincing conclusions about the existence of the causal relationships in which we are interested."

Whichever view of case study research is preferred, the essential endeavour remains the study the particular. It may be that the design of a research project requires the study of multiple cases, simultaneously or in series – perhaps because the research seeks common characteristics, or because the desire is to make generalisations about a still larger population of cases – but, whilst engaged in case study research, attention is focussed on the individual. As Stake (1998: 87) explains:

"In any given study, we will concentrate on the one. The time we may spend concentrating our inquiry on the one may be long or short, but while we so concentrate, we are engaged in case study... We may simultaneously carry on more than one case study, but each case study is a concentrated inquiry into a single case."

And, in Eisenhardt's (1989: 534) view:

"The case study is a research strategy which focuses on understanding the dynamics present within a single setting."

The decision to study a particular case is taken because, for some reason, there is a belief that the case exhibits some defining characteristics that render it of special interest. As noted above, the different research strategies available are more or less appropriate to the study of particular types of problem. The case study method is suited to investigations centred upon small numbers of naturally

occurring (rather than researcher created, as in the experiment) cases (Hammersley, 1992). Stake (1995: XI) explains:

"A case study is expected to catch the complexity of a single case. A single leaf, even a single toothpick, has unique complexities – but rarely will we care enough to submit it to case study. We study a case when it itself is of very special interest. We look for the detail of interaction with its contexts. Case study is the study of the particularity and complexity of a single case, coming to understand its activity within important circumstances."

Case study research is undertaken when we wish to develop a rich understanding of a specific phenomenon. The specific phenomenon in this research is the entity Xerox (UK) Ltd, and specifically the Customer Engagement operations performed by that entity.

2.9.2 Contrasting Views of Case Study Method

Yin's (1994) definition of the case study method is rooted implicitly in positivist assumptions. The positivist mindset is evident in his advice as to the role and structure of the research design, and the role of theory in case study research. For Yin, case study research design is structured of five components (1994: 20):

1. a study's questions,
2. its propositions, if any,
3. its unit(s) of analysis,
4. the logic linking the data to the propositions, and
5. the criteria for interpreting the findings.

The research design provides strong guidance as to what data should be collected and how it should be analysed. The research design, critically, must be formulated *prior to* the researcher(s) entering the field. The complete research design (1994: 26):

"...should not only indicate what data are to be collected – as indicated by a) a study's questions, b) its propositions, and c) its units of analysis. The design also should tell you what is to be done after the data have been collected – as indicated by d) the logic linking the data to the propositions and e) the criteria for interpreting the findings."

The complete research design provides a blueprint, or roadmap for the entire project. In working through the design, the researcher is effectively forced to begin constructing a preliminary theory related to the topic of study. In Yin's view of case study research, theory development is a necessary precursor to any field involvement (ibid: 27):

"This role of theory development, prior to the conduct of any data collection, is one point of difference between case studies and related methods such as ethnography (Lincoln & Guba, 1985, 1986; Van Maanen, 1988; Van Maanen et al, 1982) and "grounded theory" (Stauss & Corbin, 1990). Typically, these methods deliberately avoid specifying any theoretical propositions at the outset of an inquiry. As a result, students wrongly think that by using case study method, they can proceed quickly into the data collection phase of their work, and they have been encouraged to make their "field contacts" as quickly as possible. No guidance could be more misleading."

In summary, Yin (1994: 28) demands that "...theory development prior to the collection of any case data is an essential step in doing case studies." Exceptions are made for the conduct of "exploratory" case studies (the other types being "explanatory" and "descriptive") – which are appropriate where "...the existing knowledge base may be poor, and the available literature will provide no conceptual framework or hypotheses of note (p28)." In such instances, the prior development of good theoretical statements will be difficult, and the requirement for prior theory development is relaxed. But the research design must still be formulated in advance of any data collection, and statements about a) what is to be explored, b) the purpose of the exploration, and c) the criteria by which the study will be judged successful are essential still at the outset. The positivist ethos is retained, and is particularly evident in the criteria used to judge the success of the research (see Section 2.11).

This conception of case study methodology is clearly at odds with the non-positivist philosophical position. It is difficult to recognise any degree of fit between Yin's demand for an *a priori* research blueprint, and the non-positivist methodological preference for "...letting one's subject unfold its nature and characteristics during the process of investigation (Burrell & Morgan, 1979:6 – c.f. Section 2.6)" with the consequent requirements for inductive, or emergent research designs.

Thankfully, advice exists for researchers embarking on case study research with little in the way of existing theory, or from a non-positivist position. In the quotation above, Yin (1994) regards "grounded theory" (Glaser & Strauss, 1967; Strauss & Corbin, 1990) as a method distinct from the case study. Strauss & Corbin (1998: 158) regard it as a "general methodology." The researcher prefers to view both Yin's, and the grounded theory approach, as alternative approaches to doing case study research. Employing a case study method with the aim of building, rather than testing theory is the objective of "grounded theory" projects. Conceptual categories and data sources need not be deduced from prior theory, although existing theories developed using this method may be developed further. Grounded theory is used:

"...for developing theory that is grounded in data systematically gathered and analysed. Theory evolves during actual research, and it does this through continuous interplay between analysis and data collection... theory may be *generated* initially from the data, or, if existing (grounded) theories seem appropriate to the area of investigation, then these may be *elaborated* and modified as incoming data are meticulously played against them (Strauss & Corbin, 1998: 158, 159)."

The method relies upon and values an inductive, emergent design:

"...[it] relies on continuous caparison of data and theory beginning with data collection. It emphasises both the emergence of theoretical categories solely from evidence and an incremental approach to case selection and data gathering (Eisenhardt, 1989: 534)."

Furthermore, the grounded theory method grew from its authors' dissatisfaction with conventional approaches to research. Glaser & Strauss (1967: vii) sought to remedy what they considered to be an "embarrassing gap between theory and empirical research."

"Grounded theories and their possibilities were posed against dominant functionalist and structuralist theories... which Glaser and Strauss regarded as inordinately speculative and deductive in nature (Strauss & Corbin, 1998: 162)."

Distinguishing theirs from the conventional approach involves:

"...an insistence that ours is interpretive work and... that interpretations *must* include the perspectives and voices of the people whom we study. Interpretations are sought for understanding the actions of individual or collective actors being studied (Strauss & Corbin, 1998: 160)."

Eisenhardt (1989) views the grounded theory method as but one aspect of the process of building theories from case study research. This author sought to synthesise and build upon previous work (including that of Miles & Huberman (1984) on coding and analysing qualitative data; Glaser & Strauss (1967) on grounded theory; and Yin (1984) on the design of case study research) to produce a roadmap for building theories from case study research.

Eisenhardt (1989), like Yin (1994), advises the researcher to begin with an initial definition of the research question and its composite constructs. These definitions are desirable on practical, rather than 'ideological' grounds. Specifying initial questions and constructs helps to avoid the problem of becoming overwhelmed by large volumes of data. The specification is, importantly, *tentative*. For Eisenhardt (1989), research design is malleable: constructs may prove important or redundant, and the focus of research may change:

"Although early identification of the research question and possible constructs is helpful, it is equally important to recognise that both are tentative in this type of research. No construct is guaranteed a place in the resultant theory, no matter how well it is measured. Also, the research question may shift during the research (Eisenhardt, 1989: 536)."

For theory building research, extant theory and associated hypotheses are not only unnecessary, but are undesirable also. Existing theories and hypotheses may cloud the researcher's vision from the 'true' nature of the phenomenon under investigation. And so...

"...most importantly, theory-building research is begun as close as possible to the ideal of no theory under consideration and no hypotheses to test. Admittedly, it is impossible to achieve this ideal of a clean theoretical slate. Nonetheless, attempting to approach this ideal is important because preordained theoretical perspectives or propositions may bias and limit the findings (Eisenhardt, 1989: 536)."

And, finally..,

"...investigators are trying to understand each case individually and in as much depth as is feasible. The goal is not to produce summary statistics about a set of observations. Thus, if a new data collection opportunity arises or if a new line of thinking emerges during the research, it makes sense to take advantage by altering data collection, if such an alteration is likely to better ground the theory or to provide new theoretical insight. This flexibility is not a license to be

unsystematic. Rather, this flexibility is controlled opportunism in which researchers take advantage of the uniqueness of a specific case and the emergence of new themes to improve resultant theory (p539)."

This approach to case study research is better and broadly suited to this researcher's aim of conducting research within a methodologically consistent (and non-positivist) framework. Yet Eisenhardt's (1989) solution retains elements of the positivist legacy. Again, and in common with Yin (1994), Eisenhardt prefers the conventional judgement criteria of internal and external validity. Appropriate measures for judging non-positivist case study research are discussed below (see Section 2.11).

Stake (1998: 86) recognises that case study research can be conducted from alternative paradigmatic positions, but concentrates effort on discussing the nature of the method "...where qualitative inquiry dominates, with strong naturalistic, holistic, cultural, phenomenological interests." The epistemological basis of Stake's writing is parallel to that underpinning this research. The epistemological stance is clear, as he asserts (Stake, 1998: 95):

"Knowledge is socially constructed – and thus case study researchers assist in the construction of knowledge."

It was stated above that a non-positivist account of the case study method is required. Such an account is required, along with the practical guidelines therein, in order to secure methodological consistency for the project as a whole. Stake's (1998) view of the case study method is well suited to these ends, and for this reason Stake's approach is preferred. The essential elements of Stake's (1998) approach are outlined below, together with a description of how these elements are applied in practice.

2.9.3 Case Study in this Research

Like all other authors considered, Stake (1998) first and foremost regards case study research as the study of the particular. The particular is likely to be unique, and this uniqueness will be visible in six areas:

1. the nature of the case,
2. its historical background,

3. the physical setting,
4. other contexts, including economic, political, legal and aesthetic,
5. other cases through which this case is recognised, and,
6. those informants through whom the case can be known.

Cases are unique because...

"With its own unique history, the case is a complex entity operating within a number of contexts, including the physical, economic, ethical, and aesthetic. The case is singular, but it has subsections (e.g., production, marketing, sales departments), groups (e.g., students, teachers, parents), occasions (e.g., workdays, holidays, days near holidays), a concatenation of domains – many so complex as they can only be sampled (Stake, 1998: 91)"

The case in this research is the entity Xerox (UK) Ltd. This case does indeed have subsections including 'Core processes' (eg Market To Collection), customer business units (eg Central) and groups (eg Telebusiness staff and Face-to-Face salespeople). It is not difficult to demonstrate the (superficial) uniqueness of this case – for example, it is obviously unique in terms of physical setting (the geographical location of offices) and potential participants (Xerox employees). The particular subsection of the case studied also exhibits uniqueness in these areas.

Stake's project is to provide a rationale for studying the single case, and to provide an answer to the question: 'What can be learned from the single case?' As this research is based on a single case (Xerox), and a single subsection of that case (Customer Engagement Operations), a strong interest in the answers to this question exists. Following Stake's categorisation of case study types, this research can be labelled as 'Intrinsic Case Study' – the other types being 'Instrumental Case Study' and 'Collective Case Study'.

The intrinsic case study is undertaken when the researcher has a special interest in a particular case, and when interest is limited to that case alone. The case is not selected because the researcher feels it may provide insight into the workings of other cases. The intrinsic case study is undertaken because:

"...one wants a better understanding of this particular case. It is not undertaken because the case represents other cases or because it illustrates a particular trait or problem, but because, in all its particularity and ordinariness, this case itself is

of interest. The purpose is not to come to understand some abstract construct or generic problem...(Stake, 1998: 88)"

This work can be described as intrinsic case study because, firstly, at the outset of the project the researcher knew which case (Xerox) would be studied, and "...intrinsic casework regularly begins with cases prespecified (Stake, 1998: 100)." The object of the research is to gain an understanding of how Xerox operate, and not, in the beginning, to compare this case with others. The case is studied because access is available, and because a high potential for learning about this case is apparent. The possibility of comparison with other cases is not denied, but this comparison is not an inbuilt feature of the research design. Comparison comes later. As Stake (1998:100) explains...

"...researchers do not avoid generalisation – they cannot. Certainly they generalise to happenings of their cases at times yet to come and in other situations. They expect their readers to comprehend their interpretations but to arrive as well at their own. Thus the methods for casework actually used are to learn enough about the case to encapsulate complex meanings into a finite report but to describe the case in sufficient descriptive narrative so that readers can vicariously experience these happenings, and draw their own conclusions."

The available methods (tools) for learning about the case are many, and Stake's (1988: 98) generic advice is to simply "place the best brains available into the thick of what is going on." In this research the best brains available are, unfortunately, the only brains available. Tools are selected so that the researcher can...

"...seek to see what is natural in happenings, in settings, in expressions of value. What the researchers are unable to see for themselves is obtained by interviewing people who did see or by finding documents recording it (ibid: 99)."

As the reader will recall from above, methods are selected on merit – they are selected on the basis of their relative strength in tackling particular problems, in particular problem domains. The requirement for intra-study methodological consistency means that those methods must be employed in a manner consistent with the axiomatic foundations of the project as a whole. This means that any methods employed in this case study must be employed with non-positivist principles in mind.

As discussed in Section 2.7 above, and in Chapter 1, the initial aims of this research were to understand how Xerox use IT in Marketing and Sales (to begin, Face to Face Customer Engagement and Selling Process operations). Very little advance knowledge of how Xerox (or other process oriented organisations) operate in this area was available prior to the field research stage of the project. This paucity of existing substantive theory and understanding contributed to the deliberate positioning of the research within a post-positive framework.

The intention is not to test theory against empirical 'reality' and this is partly because no testable theory exists. Rather, the aim of this research is to provide a rich description of how Xerox operate in a particular area of business. This description must be constructed from Xerox's perspective. Conceptual categories and any resultant theory or model must be allowed to emerge from data collected within the case (they must be grounded in the data). *A priori* constructs are neither available nor desirable. The case is asked to 'tell its own story' (c.f. Section 2.6). The study is predicated on gaining an...

"...understanding of what is important about [the] case within its own world, not so much the world of researchers and theorists, but developing its issues, contexts, and interpretations (Stake: 1998:99)."

In attempting to understand what is important to Xerox, the researcher conducted face to face interviews with Xerox employees in the field – at mainly Xerox sites. Documentation authored by Xerox employees was collected also. The researcher made use of predominantly unstructured interviews, and collected documentary evidence. These tools are described in the following section, which also provides illustration as to how they were employed in the field.

2.10 Data Collection in this Research

2.10.1 Interviews

May (1993) distinguishes four types of research interview: the structured interview, the semi-structured interview, the unstructured or focused interview and the group interview. The latter can be structured, semi-structured or unstructured, and below the focus is on the former three types. Each kind of interview has a multiplicity of uses. Interviews can be used "...for marketing purposes, to gather

political opinions, for therapeutic reasons, or to produce data for academic analysis (Fontana & Frey, 1994: 361)." Each kind of interview is suited to different situations, and has strengths and weaknesses depending on the nature of the problem under investigation. The interview types can be classified along a quantitative to qualitative continuum:

"In moving from the structured interview to the unstructured interview, we shift from a situation in which the researcher attempts to control the interview through predetermining questions and thus 'teach' the respondent to reply in accordance with the interview-schedule (standardisation), to a situation in which the respondent is encouraged to answer a question in his or her own terms. With this in mind, we can characterise interviews along a quantitative-qualitative dimension, varying from the formal standardised example (surveys), to an unstructured situation of qualitative depth which allows the respondent to answer without feeling constrained by preformulated questions with a limited range of answers (May, 1993: 110)."

The structured interview is associated with survey research. The reasoning behind this method is that if all respondents are asked the same questions in the same way, any differences between answers will be real differences and not the result of the interview situation itself (May, 1993). Accordingly, instructions to researchers conducting structured interviews may include the following guidelines (Fontana & Frey, 1994: 364):

- *never get involved in long explanations of the study; use standard explanation provided by supervisor.*
- *never deviate from the study introduction, sequence of questions, or question wording.*
- *Never let another person interrupt the interview; do not let another person answer for the respondent or offer his or her opinions on the question.*
- *Never suggest an answer or agree or disagree with an answer. Do not give the respondent any idea of your personal views on the topic of the question or survey.*
- *Never interpret the meaning of a question; just repeat the question and give instructions or clarifications that are provided in training or by supervisors.*
- *Never improvise, such as by adding answer categories, or make wording changes.*

This kind of interview...

"...proceeds under a stimulus-response format, assuming that if questions (previously determined to elicit adequate indicators of the variable under examination) are phrased correctly, the respondent will answer them truthfully (ibid: 364)."

The second interview type is the semi structured interview. This type of interview again uses pre-specified questions, but the researcher is free to follow up points of interest by asking supplementary questions of the interviewee. As May (1993: 111) explains:

"...questions are normally specified, but the interviewer is more free to probe beyond the answers in a manner which would appear prejudicial to the aims of standardisation and comparability... this enables the interviewer to have more latitude to probe beyond the answers and thus enter into a dialogue with the interviewee."

The third type of interview is the unstructured interview. This type of interview is markedly different from the two described above. It is open ended and is more akin to an in-depth conversation than a straight-forward question and answer session. The unstructured interview is the method of choice when the researcher is unsure of what is important within the domain of interest. It is the method of choice when the researcher is interested in empathising with participants, and when the researcher wishes to gain an understanding of the salient issues as seen from the participant's perspective. The difference between structured and unstructured interviews is summarised by Lincoln & Guba (1985: 269) as follows:

" ...the structured interview is the mode of choice when the interviewer *knows what he or she does not know* and can therefore frame appropriate questions to find out, while the unstructured interview is the mode of choice when the interviewer *does not know what he or she doesn't know* and must therefore rely on the respondent to tell him or her. In the structured interview the questions are in the hands of the interviewer and the response rests with the interviewee; in the unstructured interview *both* questions and answers are provided by the respondent ("Tell me the questions I ought to be asking and then answer them for me")."

According to May (1993: 112, 113), the unstructured interview has...

"...an ability to challenge the preconceptions of the researcher, as well as enable the interviewee to answer questions within their own frame of reference. [The unstructured interview]...allows meanings that individuals attribute to events and relationships to be understood in their own terms... it thereby provides a greater understanding of the subject's point of view."

These remarks resonate strongly with the non-positivist methodological tenets described in Section 2.6. This kind of interview seems well suited to the researcher seeking local, idiographic understanding of a case. It does not force the respondent to "...fit into boxes and categories of the researcher's choosing (ibid: 113)." In this way, important concepts and categories are suggested by the participant, not the researcher – and so this method is consistent with the non-positivist preference for emergent research design.

Interviews in this research were conducted with these considerations in mind. The researcher began each interview with a summary of the project's history and aims, and a statement of the broad themes under consideration. A typical introduction ran as follows:

[researcher] "...shall I explain where I'm coming from then (please). It's a Ph.D. project, its supposed to be three years minimum, sponsored three ways by the business school, yourselves and the economic and social research council. Part of the research is the field research stage, which normally takes between three months and a year, and I expect to finish some time in July. Then I will go away, transcribe, analyse the data, and try and build some sort of model – trying to understand how Xerox perceive and look at a particular area. It started out just looking at Face to Face Selling Process, because they'd not been covered in the academic journals so it looked like a new area. After speaking to various people it seems that I wouldn't get a proper picture of things unless I considered other channels as well such as the Telebusiness channel and the Internet / Extranet channel. So what I'm trying to understand is how Xerox are using technologies within these channels along with process orientation, to achieve I suppose business results, and it seems that this comes under the umbrella of your Go To Market strategy – so as a first open question, if I said to you, why is it that Xerox think it's a good idea to organise around processes – very generally, could you say. It's a very broad question but I'm deliberately going to be quite vague to see, what are the..."

The researcher was at all times aware of the need to respect the participants' time constraints and particular circumstances. The researcher had been advised by the industrial supervisor to:

"...keep it as, if you can keep it to sort of half an hour, if you can keep it to twenty minutes even better – you know they're busy people, and they're giving up their time."

Where possible the researcher would negotiate a time frame for the interview at the outset, and in most cases one to two hours was available. If the participant indicated that a limited time was available the researcher would consider

introducing a greater degree of 'organisation' to proceedings. There appeared to be an obvious relationship between the number of themes covered, the 'depth' of discussion about each theme, and the time available for discussion. The researcher had to make a decision, during the discussions, about how best to capture each participant's views.

The themes suggested to the participant varied slightly depending upon the role of the participant within Xerox. For example, if it was known that the respondent had responsibility for Ebusiness (or Telebusiness or Sales Force Automation etc) within the UK, the researcher would naturally elevate this theme above others. All other themes of interest would be mentioned in the introduction, or during the interview at some stage, but if the participant was a specialist in one particular theme then the interview would tend to revolve around this specialism. From the outset the participants were advised that the researcher was interested in what was important from *their* point of view. Therefore the breadth and depth of discussion regarding the interview themes varied with the position of participants (their responsibilities and specialisms) within Xerox. Participants would prefer to discuss some themes in more detail than others, depending upon their particular expertise in relation to those themes.

The results chapters of this thesis are based on the data collected from nineteen (19) unstructured and 'semi- to unstructured' interviews. Those interviews described as unstructured are in the majority. In these interviews the researcher introduced the research and themes of interest at the beginning of the interview, but thereafter the direction, depth and breadth of the interview were dictated almost exclusively by the participant. Often the participant would make a note of the themes of interest (process orientation, differing technologies, customer engagement channels etc.) and simply talk their way through them. The researcher would in such cases need only to 'interrupt' where clarification was necessary, or further detail required.

The researcher believes that this type of interview is ideal for the present purposes, and that these interviews are made possible through a proper explanation of the researcher's aims and expectations in preliminary communications (requests to meet the participant sent by post in advance) and during the introduction to the interview itself. This type of interview was feasible.

when the researcher was aware that sufficient time for this type of interview was available. Where less time was available and the participant's role in Xerox suggested a broad purview in respect of the research themes, the interviews became 'semi- to unstructured'. In this context the researcher would attempt to introduce new themes (to prompt the participant) at regular intervals, and would make more frequent use of specific questions. In all cases, though, the breadth of the interview and the depth to which each theme was discussed was determined ultimately by a combination of the participants' expertise in relation to the themes, and the time available for discussion.

All interviews were recorded, and each respondent was guaranteed anonymity at the beginning of the interview. In some instances this guarantee was obviously appreciated:

[participant] "...and that tape recorder is just so that you capture everything, that you hear..."

[researcher] "I capture everything, go back to the office, transcribe it, and then use a piece of software to pick bits out of..."

[participant] "...as long as you don't play it back to [the industrial supervisor], now wouldn't that be fun..."

[researcher] " It's all anonymous (good thank you). Documents as well, if you have any relevant ones. I've signed the non-disclosure form, most people supply one or two, even if they don't seem relevant at the time, they may be relevant to something somebody else has said in an interview before."

A critical decision to be made during the field engagement stage of the project is exactly whom should be interviewed. Participants were identified through a process similar to theoretical sampling. The research was initially focussed on gaining an understanding of the use of IT in Face to Face Customer Engagement activity by a holistic, process oriented organisation (Xerox). With this focus in mind the researcher and industrial supervisor (a Director and General Manager) agreed that contact should be made with a Sales Manager located in one geographical office. During the consequent interview this manager suggested that the researcher should consider both 'strategic' and 'operational' perspectives – and recommended appropriate participants.

Following these interviews the researcher realised that focus should broaden to include other Customer Engagement channels (Telebusiness, Ebusiness etc). From this point forward potential interviewees were identified by participant suggestion. Participants suggested names either of their own accord, or following requests by the researcher. Suggestions and requests were made in most cases during the interview, but also in follow-up email exchanges or telephone conversations. The researcher's requests were based in part on judgements about the degree and frequency to which particular research themes had been discussed previously. In some instances the researcher would suggest a theme for discussion and the participant would state that they could offer little of what they considered to be valuable insight. In such instances the participant would usually suggest a colleague better placed to continue the discussion, for example:

[respondent] "...that's a question for [another respondent] actually... I'm not sure if they do that any more, I'm not sure... but I know [another respondent's] very good on numbers... so he's got numbers for that..."

Requests for further participants were also based on a judgement of the 'kinds' of perspectives previously captured, and thought valuable for the future. The researcher was frequently made aware of the differences of perspective thought to exist between participants due to their position in the organisation. Differences of view, for example, between people with what was referred to as a 'HQ mentality' and those who worked 'on the ground' or in front of the customer. As one participant suggested:

[participant] "I mean you'll get a totally different views. Because I'm you know, I've moved up from, in my thirteen years at Xerox I've been very much all the way through, customer, front end, in front of the customer – as account manager roles, different selling roles to industry account – you'll have a completely different view, I would guess, from a non-sales perspective, more often, if you speak to those types of people..."

The interview evidence chain was extended through this process until the researcher felt satisfied that sufficient data had been collected. The decision to terminate field engagement was made when the researcher found that each new participant could offer no 'new' insight – when each theme had become 'saturated' – when the researcher felt confident that a holistic understanding of all themes had been secured.

2.10.2 Documents

A second source of data collected in this research was documents supplied by interview participants. During and after interviews documentation relating to the discussion topics was offered by the participants, or requested by the researcher. Documentation is a useful data source for three reasons (Lincoln & Guba, 1985: 276,277). Firstly, documents and records are...

"...almost always *available*... [Second] they are a *stable* source of information, both in the sense that they may accurately reflect situations that occurred at some time in the past and that they can be analysed and reanalysed without undergoing changes in the interim. Third they are a *rich* source of information, contextually relevant and grounded in the contexts they represent. Their richness includes the fact that they appear in the natural language of that setting... and... they are, unlike human respondents, nonreactive – although the reader should not fail to note that what emanates from a documentary or records analysis still represents a kind of interaction, that between the sources and the analysing investigator."

The documents collected from participants were, in the main, presentation slides. Sometimes the participant chose to structure part of the interview discussion around these slides. Complete written reports were rarely available. The following exchanges, from two different interviews, clarify why this is so:

[researcher] "Is this actually written down somewhere, this belief?

[participant] "I doubt it actually. I mean most stuff within, most sort of thoughts and strategies within Xerox are in peoples head, and on presentation slides maybe..."

And:

[researcher] "OK. So the future model generally you think will be less direct face to face sales, more Telebusiness, and Internet based – that's the general trend?"

[participant] "Yeah I do. That's what they told us. That's what they told us they want to do. That's roughly a history of Sales Force Automation, in the organisation, so far. It seems we don't have very many written reports. We don't communicate with written reports any more. The only thing we communicate with – nobody reads a report – if you send a report out nobody will read it, but you have to go and present to them if you want them to know something. It's true. In an organisation like this one. So that's why you'll find there are remarkably few reports around. Most of it's presentations..."

Aside from presentation slides and a small number of complete written reports, the researcher also collected email circulars, documents downloaded from the

Xerox intranet and internal magazines produced for consumption by Xerox employees. Following an interview the researcher sometimes felt the need to clarify the meaning of something the participant had said. In such instances the researcher would either email follow-up questions to the participant, or pose follow-up questions through telephone conversation. Responses to these follow-up questions constitute another form of documentary evidence. The researcher also made notes during each interview.

Two kinds of data have been analysed to produce the results of this research: data from unstructured and semi- to unstructured interviews, and data from documents supplied by interview participants. These data were collected in order to gain an understanding of how Xerox, a process oriented organisation, used IT in their Customer Engagement operations at the time of the research.

The next section of this chapter looks at the quality criteria the reader will apply in judging this research. Then, penultimately, a summary of the practical details of the data collection strategy employed in this research is provided. Finally, the approach to data analysis employed in this research is described.

2.11 Quality Criteria : the Trustworthiness of this Research

During the previous discussion (Section 2.9.2) of the contrasting approaches to case study research, the author expressed discomfort with Yin's (1994) prescription on various grounds. Yin's account was understood to be predicated on positivist assumptions, and such an account was deemed inappropriate in the context of this research. The positivist account did not 'fit' easily with the non-positivist identity of this project as a whole. The lack of congruence between paradigm and method application meant that, if a positivist approach were adopted, the researcher's desire for methodological consistency would remain unfulfilled. For this reason Stake's (1988) explicitly non-positivist account was preferred.

The positivism in Yin's (1988) method is visible during the advice given for the assessment of research. Yin (1988: 33) states that the quality of case study research can be judged using the four tests that, it is claimed, "...are common to

all social science methods." These tests are construct validity, internal and external validity, and reliability. Each is summarised below:

Construct Validity: establishing correct operational measures for the concepts being studied (Yin, 1994).

Internal Validity: (for explanatory or causal studies only, and not for descriptive or exploratory studies): establishing a causal relationship, whereby certain conditions are shown to lead to other conditions, as distinguished from spurious relationships (Yin, 1994). "The approximate validity with which we infer that a relationship between two variables is causal or that the absence of a relationship implies the absence of a cause (Cook & Campbell, 1979: 37)."

External Validity: establishing the domain to which a study's findings can be generalised (Yin, 1994: 33). "The approximate validity with which we infer that the presumed causal relationship can be generalised to and across alternate measures of the cause and effect and across different types of persons, setting and times (Cook & Campbell, 1979: 37)."

Reliability: demonstrating that the operations of a study – such as the data collection procedures can be repeated, with the same results (Yin, 1994:33). It is synonymous with accuracy, dependability, consistency and stability.

These tests are indeed applicable to any and all research methods, but *only* when those methods are used in positivist research. These tests are applicable to the judgement of positivist research only, because they "are themselves dependent for their meaning on the conventional [positivist] axioms, such as naïve realism and linear causality (Lincoln & Guba, 1985: 293)."

This research is non-positivist research. The methods used in collecting field data have been designed and applied in a manner consistent with non-positivist principles. The tests designed to judge the quality of positivist research are ill-suited to the judging of this, non-positivist research. This is because the criteria for what counts as significant knowledge vary from paradigm to paradigm – hence, the tests used to judge any research must be chosen in the light of that research's paradigmatic identity. As Lincoln & Guba (1985: 293, 294) observe:

"...criteria designed from one perspective may not be appropriate for judging actions from another perspective, just as, for example, it is not appropriate to judge Catholic dogma as wrong from the perspective of say, Lutheran presuppositions... Different basic beliefs lead to different knowledge claims and different criteria."

The non-positivist analogues to the positivist tests of internal and external validity, reliability and construct validity are, respectively: 'credibility', 'transferability', 'dependability' and 'confirmability'. Together these criteria allow the reader to gauge the 'Trustworthiness' of the claims made in this research. Below is a brief description of these tests, and a statement as to how each test is satisfied in this research. The descriptions which follow are condensed from Lincoln & Guba's (1985: pp289, 331) more complete discussion. Table 2.4 on the following page summarises the non-positivist trustworthiness criteria.

2.11.1 Credibility

Credibility means producing research results that reflect the viewpoints of those we seek to understand. The research results must be credible in the eyes of those studied. The author must demonstrate to the reader that the findings of research are credible to the research participants.

The researcher believes that the results of this research are indeed credible to those studied. The results are based entirely on the evidence of participants who 'live' in the domain of inquiry. The approach to interviewing – that is, posing deliberately 'vague' or open ended questions, and intentionally allowing the participant to dictate the content, depth and breadth of subjects discussed – suggests that the results presented in this thesis reflect the views of those studied. Conceptual categories and their relationships have emerged from the data, and those data are shaped by the research participants.

This project is based on eleven months of continual contact between the researcher and researched: a prolonged period of engagement. The results relate to that specific period in time – to how Xerox was then. The researcher is confident that this temporally and contextually bound segment of Xerox history is accurately reflected in the results, and that the research participants would testify to this view.

The trustworthiness of the research findings is increased further as a result of their being supported by two modes of data 'triangulation'. This research made use of multiple and different *sources* (participants) and *methods* (interviews and documents). Confidence in the findings is improved as multiple and different

Table 2.4 - *Tactics for Establishing Trustworthiness* (Lincoln & Guba, 1985)

Criterion Area	Tactic
Credibility	1. Activities in the field increase credibility a. prolonged engagement b. persistent observation c. triangulation (of sources, methods, and investigators) 2. Peer debriefing 3. Negative case analysis 4. Referential adequacy 5. Member checks (in process and terminal)
Transferability	6. Thick description
Dependability	7. The dependability audit, including the audit trail
Confirmability	8. The dependability audit, including the audit trail

sources of evidence suggest similar results. Simply put, if many people say the same things, and if what they say is backed-up in documents, then the credibility of findings is increased. The descriptions of categories and relationships between categories contained in the following Chapters are based on multiple participants' views, and are corroborated by documentary evidence too.

2.11.2 Transferability

Non-positivist research is aimed at producing ideographic (local, time and context bound) statements about a domain of interest. The transferability of these

statements depends on the similarity between sending (research location) and receiving (comparison) contexts. The burden of proof for transferability lies with the person seeking the application of statements to other contexts, rather than the original researcher. This is because the researcher cannot know the sites to which transferability might be sought, but readers can and do. The author must provide sufficient descriptive data to make similarity judgements between sending and receiving contexts possible.

As stated above, the results contained in the Chapters below relate to a specific period of Xerox history – namely the eleven months of field engagement. The results presented are faithful to the data collected, and the author believes that sufficient detail is included to make comparison judgements between this research context and others possible. But, as the above suggests, the burden of this judgement lies ultimately with the reader.

Although the responsibility for judging the transferability of non-positivist research lies ultimately 'in the eye of the beholder' – it is nonetheless essential for the researcher to provide assistance to the reader in making that judgement. As is invariably the case, this research is likely to be of interest and utility to some readers more than others. Equally, as is explained below, the findings are not necessarily 'an irreducible set' – whilst some may be of use to some readers, others (the researcher hopes) may merely be interesting.

Strictly speaking, the phenomena and relationships described in Chapters 3 to 6, and conclusions presented in Chapter 7, are transferable only to large (multi-site) UK organisations that have spent over a decade re-designing their entire business architecture along process lines; which have traditionally been reliant almost exclusively on a highly trained F2F salesforce to perform Customer Engagement activity; which have nine years experience in actively developing and improving a UK market-wide customer and non-customer database; and which have taken the decision to target resources at entering a new technology (in this case digital document solutions) market whilst maintaining (but reducing) their presence in their traditional sectors (for Xerox, analogue imaging/copying).

It is likely that the set of organisations exhibiting all of these characteristics is small – and so the chances of matching exactly the sending (Xerox) and receiving

(other organisations) contexts seem slight. However, and perhaps fortunately, the degree of transferability across findings is not uniform – that is, some of findings are more transferable than others. Whilst some elements of the description in Chapters 3 to 6 deals with Xerox-specific issues – issues that are closely bounded by Xerox's history and culture – others seem relevant to much broader segments of the organisational population. For example, it was shown in Chapter 1 that the number of organisations undergoing BPR is growing rapidly. Hence, it seems that the population of firms employing a process-oriented approach to F2F Customer Engagement will only expand. It is therefore likely that the findings of this research regarding the process-oriented measurement and management of F2F work (e.g. best practice requires the taking of, and management by, in-process measures and key ratios) are of relevance for the managements of those firms – either now, or in the future.

Furthermore, the transferability of some findings is not limited to other process-oriented firms (or those currently undergoing (or considering) BPR). For example, the problem of maintaining database content quality is probably generic to all database-using organisations. This research has found that, at Xerox, the F2F salesforce is particularly unwilling or unable to regularly input / update relevant market intelligence to the database. The research also shows that both management and F2F people believe that the introduction of Sales Force Automation (SFA) will go some way in contributing to the improvement of database quality. Of course, the benefits of Xerox SFA are not limited to a potential resolution of the data quality problem, but this finding is surely of relevance to other firms currently operating, or considering the implementation of, their own SFA initiatives.

From the above brief examples it is clear that the transferability of the findings presented in Chapters 3 to 7 is not limited to those contexts which exactly match that of Xerox (late 1998 – late 1999). And again, it is the reader's decision as to which findings are relevant to him or her. The author suggests that the reader considers each of the conclusions presented in Chapter 7 on a 'case-by-case basis'. Those conclusions are accompanied by references to sites (sub-sections) in the descriptive Chapters (3 to 6) where relevant further description / explanation can be found. By reading the associated 'evidence' for a conclusion, the reader is clearly in a better position to judge the alikeness or otherwise of the

Xerox case and his/her own – and hence the potential transferability of that conclusion.

2.11.3 Dependability

The non-positivist recognises that domains of study are always and ever changing. Precise replication of any study's results is highly improbable, as study and results are temporally and contextually bound. Dependability is secured by providing the opportunity for readers to audit (and to judge the quality of) the process of research, and the product of that process – the research data.

The author hopes that this Chapter describes the processes of research in sufficient detail to render the results dependable. To this point the research has been demonstrated as methodologically consistent, and the processes of collecting interview and documentary evidence have been described. The way in which analysis is carried out also has a strong bearing on the dependability of research. How the research evidence was analysed is the subject of the final section of this Chapter, which serves to enhance further the dependability of this research.

2.11.4 Confirmability

Confirmability means guaranteeing the quality of the research data. Is the quality of the research data such that they are confirmable? Confirmability is established by confirmability audit. An audit trail should be available to the reader, and should include – the raw data gathered, data reduction and analysis products, data reconstruction and synthesis products, process notes, materials relating to intentions and dispositions, and instrument development information. All materials relating to this research are available for audit. Xerox (UK) Ltd non-disclosure principles apply.

The author believes that the trustworthiness of this research is secure, and this trustworthiness is understood through a reading of the thesis as a whole. The penultimate section of this Chapter provides a summary of the data collection strategy employed by the researcher.

2.12 Data Collection Summary

The field engagement stage of this research began on the 27th of August, 1997. On this date the researcher, Academic Supervisor and Industrial Supervisor met at Xerox (UK) Ltd headquarters to discuss the project: the direction of the research, the level of access required, probable time-scales and mutual expectations.

Following this introductory meeting the researcher carried out 19 semi- to unstructured interviews between the 2nd of September 1998 and the 15th of July 1999 – a period of approximately eleven months. These interviews varied in duration between forty (40) and one hundred and thirty (130) minutes, with an average duration of approximately ninety (90) minutes. Eighteen of the research participants were Xerox employees of various levels of seniority – including Directors and General Managers, Industry Directors, National Marketing Managers, Account Managers and others. One of the participants was a frequently-used private consultant (specialising in Organisational Sales Models) to Xerox.

Seventeen (17) of the interviews took place at Xerox sites (Birmingham, Uxbridge, Marlow, Wokefield Park and Central London), one of the interviews took place at the National Exhibition Centre (NEC) in Birmingham, and the remaining interview took place at the participant's home.

All interviews were recorded using a personal stereo-sized tape recorder, and all participants were guaranteed anonymity at the outset. These interviews were then transcribed, resulting in two hundred and thirty (230) pages of interview data. The researcher also collected several hundred pages of Xerox authored documentation. This documentation is in either electronic format (emails and attachments, floppy disks), or hard copy (paper) form. These documents include presentations (slides), reports, internal email circulars, Xerox magazines, documents from the Xerox intranet, and personal correspondence between participants and the researcher. The researcher also made notes during each interview, and these are contained in two A4 notebooks. How this large volume of data was managed and analysed is the subject of the remaining section of this chapter.

2.13 Data Analysis Strategy

This section deals with how the research data, once collected, were managed and analysed to produce the results described in Chapters 3 to 6. Data analysis, Eisenhardt (1989) contends, is both the most difficult and least codified part of the research process. There exists no standard strategy for analysing qualitative data, and "...there are probably as many approaches as researchers (ibid: 540)." Published studies often explain in sufficient detail the methods of data collection, but fail to give adequate attention to how the collected data were analysed. As a result, "...a huge chasm often separates data from conclusions (ibid: 539)." This section seeks to bridge (or avoid) that chasm. Furthermore, an explanation of the analysis process will increase the trustworthiness of subsequent results (c.f. Section 2.11 above).

The analysis strategy employed is similar to the Constant Comparative method defined by Glaser & Strauss (1967). This method is an integral part of Glaser & Strauss' (1967) Grounded Theory Methodology – so much so that the latter is often referred to as the 'constant comparative method' (Strauss & Corbin, 1988). The original grounded theory methodology envisaged data collection and data analysis as activities proceeding in tandem, as part of an overall theory building project. In this way theory (or theoretical categories) emerges from the analysis of data, and that theory informs subsequent data collection (theoretical sampling), and so on – it is an iterative process.

The constant comparative method comprises four stages: 1. Comparing incidents applicable to each category; 2. Integrating categories and their properties; 3. Delimiting the theory; 4. Writing the theory. These stages are integrated in the process description below.

The approach taken in this research differs from Glaser & Strauss' (1967) because, in this inquiry, data collection and data analysis proceeded in series – rather than in tandem. The formal data analysis stage of the project did not begin until all data had been collected. This is not to say that the author did not think about the data as they were collected, or speculate as to possible emergent categories, patterns or findings. Indeed, the identification of potential participants involved thinking continuously about the data and emergent salient themes (see Section 2.10 above).

The reader will recall from above that semi- and unstructured interviews are characterised by a dialogue between researcher and participant. Although the participant may in many cases supply both the questions and answers, the researcher is conscious of previous discussions, and will seek out through additional questioning both conflicts and concurrences of understanding between different participants. The researcher can not avoid thinking about the data as the research progresses. Yet, in this research, the formal process of data processing and analysis described below did not begin until the last participant had been interviewed, and the last document obtained. The process of analysis employed is described below.

2.13.1 From Analysis to Results

The first element in this analysis was the coding of interview and documentary evidence. Coding involves extracting 'categories' from the data, and 'incidents' that fit into those categories. Glaser & Strauss (1967) offer little guidance as to the source of these categories, stating only that they 'emerge'. How they emerged in this analysis is described below. Categories may be names for things, cover terms and semantic relationships (Lincoln & Guba, 1985). For interview data, incidents are text units (speech units or paragraphs) related to these categories.

An important issue in the analysis of research data is whether or not the use of multiple coders is appropriate or required. That is, whether the use of multiple coders can serve to increase the trustworthiness of research. According to Hammersley (1992: 67), the use of multiple coders can potentially increase the 'reliability' of analysis, where reliability...

"...refers to the degree of consistency with which instances are assigned to the same category by different observers or by the same observer on different occasions."

As stated repeatedly above, this research is based on non-positivist principles. The non-positivist researcher must accept and be aware that multiple interpretations of research evidence (transcripts / documents) are possible, and that these multiple interpretations must be taken into consideration. As Seale (1999: 154) notes:

"...it becomes relevant to ask whether other minds would see things in the same way. In a sense, an inter-rater [multiple-coder] exercise can be understood as a test of the potential readership of a research report, to examine the degree to which this is likely to convey shared meanings consistently."

However, the issue of whether and when to use multiple coders is not straight-forward. A contrary argument suggests that, for non-positivist research, multiple coders are both unnecessary and undesirable. This position is summarised by Morse, 1998: 77-78) as follows:

"Occasionally, a qualitative investigator uses a second investigator to read and code a transcript, or checks the "validity" of a category by asking someone else to affirm that, indeed, he or she is "seeing what is there." This process actually violates the process of induction, because the first investigator has a bank of knowledge from conducting other interviews and from observing that the second researcher does not have.

"As the process of inductive qualitative inquiry frequently depends on insight and on the process of linking data... expecting another investigator to have the same insight from a limited data base is unrealistic...

"...the process of synthesizing data is similar to the cognitive process of synthesising others' articles for a literature review. No one takes a second reader to the library to check that he or she is interpreting the original sources correctly, so why does anyone need a reliability checker for his or her data?"

This argument recognises the role of tacit knowledge – gained over the period of field engagement – in the analysis and synthesis of the research evidence. Proponents of this view would not object to the use of multiple investigators (engaged from the outset), but reject the notion that the use of multiple coders can serve to increase the trustworthiness of research conclusions.

This project was undertaken with the aim of gaining the degree of Ph.D. As in most such cases, the research and analysis was undertaken alone. The required resources for either multiple investigators or coders were simply not available to the author. It is still the case, as shown above, that any research report (including this thesis) must demonstrate to the reader that the a sufficient level of trustworthiness has been attained. In this case, where neither multiple investigators nor coders were available, the author has followed the advice of Silverman (2000: 188) – namely, that it is incumbent on the researcher to "document his or her procedure and to demonstrate that categories have been

used consistently." Practical advice on this point is offered by Seale (2000: 155-156), who states that:

"...if research reports contain accounts of coding schemes with illustrative examples of typical instances coded under each heading, readers are more likely to be persuaded that care has been taken to analyse data in ways that are, at least, logically consistent."

This aspect of analysis, Seale (ibid.) argues:

"...helps to guard against the errors associated with sole researchers who, free from the checks and balances imposed by the need to show consistency to others, present readers with categories poorly connected with field observations."

To this end, Appendix II of this thesis shows the final coding scheme that emerged from the research data during analysis. The reader will note that the scheme bears some resemblance to the Chapter structure of the thesis. This is unsurprising since (and with the researcher's aim of remaining 'faithful to the data') that structure (sub-headings, contents) was determined by the category structure and category content that emerged during analysis. Furthermore, illustrative examples of categories and exemplars are provided below.

To begin the analysis each interview was transcribed and loaded into the NUD*IST qualitative data analysis software application. In the interests of participant anonymity, transcripts were labelled only with the year of the interview and a number from 1 to 19 – these numbers do not relate the chronological order of the interviews. Documents associated with a specific participant were marked with that participant's assigned number. In the following results Chapters, quotations and document extracts are distinguished following this simple numbering scheme. Quotations are further distinguished by text unit number. These numbers are automatically added to text units when the documents of which they are a part are coded using the NUD*IST application. Document extracts are distinguished by associated participant number, by page number and by (as accurately as possible) creation date. So, for a quotation:

(1, 22-25, 1999) means that the quote is extracted from an interview with participant 1, that the quote includes elements from text units 22 to 25 of the transcription, and that the interview took place in 1999.

For a document extract:

(1, p12, 25/05/99) means that the document was supplied by participant 1, that the extract from that document is related to page 12 of the original, and that the document was created on the 25th of May 1999.

These conventions serve to increase the trustworthiness of the results because triangulation of both sources and methods is easily visible (c.f. Section 2.11 above).

Next the first interview was displayed on screen. The researcher considered the first text unit – an introduction by the researcher – and decided that it might be useful to store all introductions in a single place. 'Introductions' became the first category, and thereafter all interview introductions were coded at this category - or 'Node' in NUD*IST terminology.

Next the researcher examined the first speech unit articulated by participant 1. The first subject of this paragraph was Sales Force Automation – thus the researcher created a new category called 'SFA' and coded the relevant text unit at that category. However, this speech unit also contained references to 'Legacy Systems' and 'SAP'. The researcher decided that two new categories were needed. In total the first text unit was coded at three categories: 'SFA', 'Legacy Systems' and 'SAP'.

The researcher continued this process of extracting categories from the first participant's speech, and coding text units at one or more categories, until the first instance at which a text unit appeared to 'fit' with an existing category (and existing incident) arose. This point was reached very quickly. Here the researcher must compare the incident in the existing category with the as yet un-coded incident - which seems to belong to that category. The researcher thinks about how incidents are alike and unlike, and about whether they perhaps share a common trait relating to a further, as yet un-created category. Through comparison of incidents the researcher begins the process of defining category inclusion and exclusion rules. In the early stages of the analysis these rules are ill-defined.

As this process of category extraction and incident comparison and allocation proceeds, some categories become more well-defined than others. Here the researcher wrote a tentative definition of such categories – in the 'Node Properties' field supplied in NUD*IST – and in some cases changed the category's name. The researcher also began to identify possible relationships between categories. Again these relationships emerged from the data, from participants talking explicitly about, and explaining such relationships. Throughout the analysis process the researcher was conscious that categories should be allowed to emerge from the participants' speech, rather than being 'imposed' on the data by the researcher. Wherever possible category names were derived from terms (and combinations of terms), used by the participants, and in the vast majority of cases this did occur. When relationships between categories emerged the researcher created a new category representing the link between two or more categories – and the text unit in which this relationship was mentioned was then coded at the new category. The categories resulting from the analysis process described so far are of two types: descriptive and explanatory (Lincoln & Guba, 1985)

The processes described above are illustrated in the development of the categories 'SFA' and 'SAP'. After a time it became clear that these two categories were in some way related. A new category was created named 'SFA & SAP'. In taking the decision to create a new 'explanatory' category the researcher also 'tightened' the definition of the two original categories. The two original categories were re-named 'SFA Definitions' and 'SAP Definitions' and were delimited as 'descriptive' categories at which incidents relating to SFA only or SAP only were coded. This process forced the researcher to re-examine the incidents already coded at the original SFA and SAP to check whether any relocation was required. The definitions of these three categories, and an example of the incidents coded at them is shown below.

Category: **SFA Definitions** *Definition*: Sales Force Automation. Definitions of, descriptions of.

Incident: "...it's a name Xerox gave to technology. To be honest we did have a project before which I'm sure people like [the Industrial Supervisor] will have told you before around Sales Force Automation, and that was a name give to giving all the sales people lap tops and the idea being that they could go from

proposal all the way to processing the order and it would automatically load onto our order processing system..."

Category: **SAP Definitions** *Definition*: Generic descriptions only.

Incident: "...well what it will do is, again it takes a holistic piece, that it basically – SAP will run all of your, it will link all of your financial systems in terms of your P and L reporting from your billing, from your service revenues – it brings all the whole thing together so you can a) you'll have all your data and b) you can manipulate it every which way or loose..."

Category: **SFA & SAP** *Definition*: SAP mentioned in connection with SFA.

Incident: "...We tried to that, like four or five years ago, and realised that the project was probably too big for us as an organisation to run on our own. We're now using, or going to implement S.A.P or sap next year, and therefore the Sales Force Automation will come through S.A.P..."

The coding processes described above were continued for each of the nineteen transcriptions in turn. Over time, and as ever more incidents were compared with those in extant categories, the categories themselves became more precisely delimited. The researcher was forced, through this comparison of coded and un-coded incidents, to examine ever more carefully the rules for category inclusion or exclusion. Naturally, the number of both descriptive and explanatory categories increased, and hierarchical relationships between categories emerged. For example, alongside the original descriptive category 'Telebusiness' emerged three descriptive sub-categories: 'TeleCoverage', 'TeleMarketing' and 'TeleSales'. Each of these three categories is linked to the explanatory category 'Sales Process and Telebusiness'. It is at this point that 'relationships become more evident and the category set becomes more coherent – more than a mere taxonomy within which to classify data (Lincoln & Guba, 1985: 342, 343)." With ongoing analysis the entire category set became more integrated, and more meaningful.

The processes described above continued until the coding of all interview evidence was complete. In the next stage of the analysis the documentary evidence was analysed for categories and incidents in a similar way to the interview evidence. As documents were generally supplied by participants as 'back-up' to what had been discussed already, it was unsurprising that very few new categories emerged from those documents. However, documentary analysis did reveal many valuable incidents relating to extant categories. The documents often contained specific figures and important diagrams to which the participants had referred in a general way during interviews.

Having analysed all interview and documentary evidence the researcher then focussed on the process of constructing the results of those analyses. The results chapters of this thesis (Chapters 3, 4, 5 & 6) are based on the category contents and relationships that emerged from the analysis processes described above. More weight is given in the results to those categories and relationships that became 'saturated' during the analysis. Categories are saturated when they become "...so well defined that there is no point in adding further exemplars [incidents] to them (Lincoln & Guba, 1985: 343, 344)." Saturated categories tend to be more densely 'triangulated' (c.f. Section 2.11 above). Basing the following results on these categories should therefore serve to increase the trustworthiness of those results. Categories containing only a small number of incidents are in most cases mentioned, but the focus is upon those categories and relationships which emerged prominently from the data.

Following Lincoln & Guba's (1985) recommendations as to the writing of case reports, the following chapters seek to include at least the following elements:

- *A thorough description of the context or setting within which the inquiry took place and with which the inquiry was concerned.*

- *A thorough description of the transactions or processes observed in that context that are relevant to the problem.*

- *A discussion of the saliences that are identified at the site; that is, those elements identified as important that are studied in depth.*

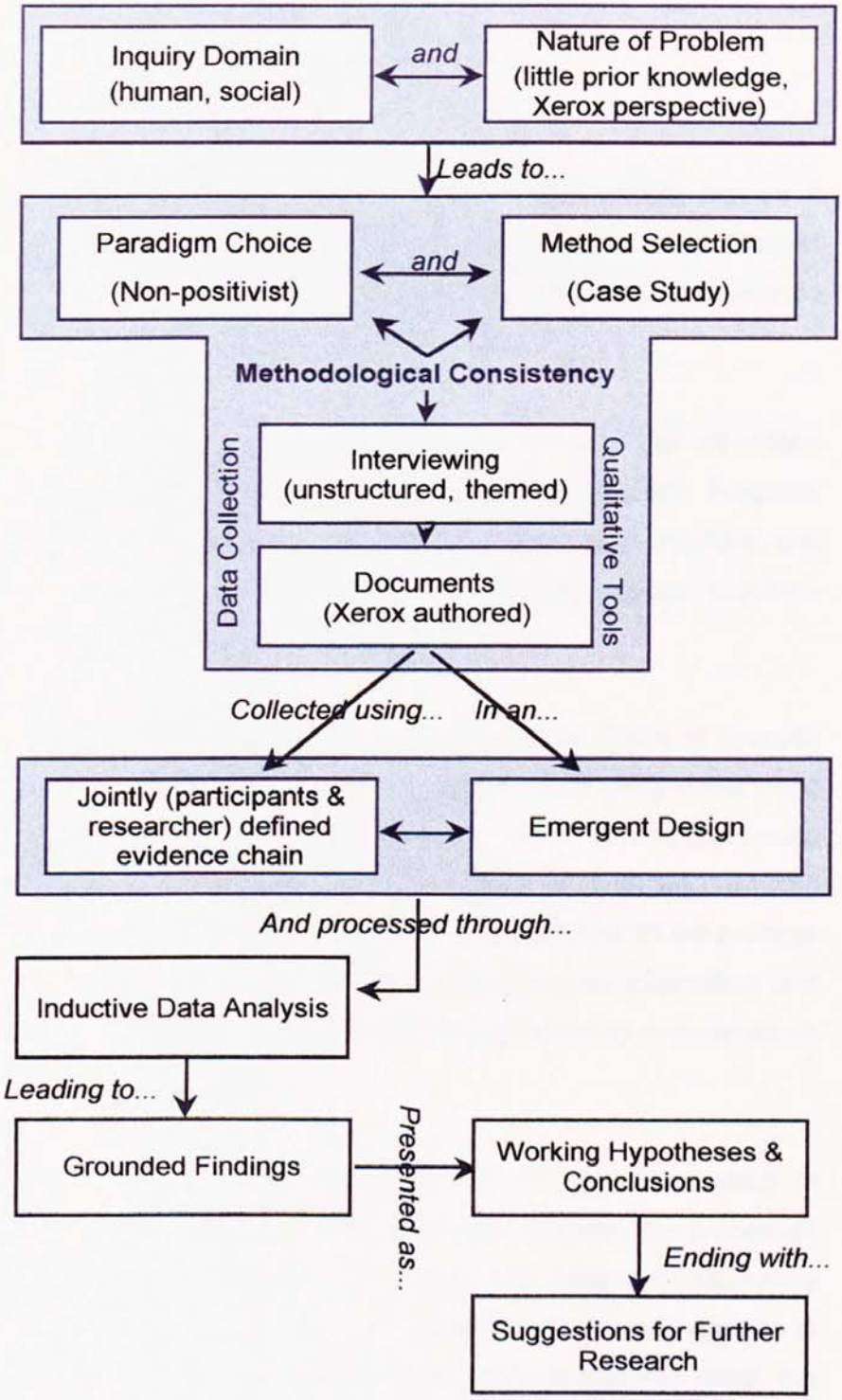
- *A discussion of outcomes of the inquiry, which may most usefully be thought of as the "lessons to be learned" from the study. These lessons are not generalisations but "working hypotheses" that relate to an understanding of the case.*

The latter item on the list above – a discussion of the 'lessons to be learned' – is contained in Chapter 7. That Chapter presents the conclusions to this project, and makes recommendations for further research. The next chapter (Chapter 3) deals with the first element in the list above – provision of a thorough description of the research context or setting. Here this involves describing Xerox's process structure and strategic context at the time of the research, and identifying the precise organisational elements the research seeks to understand. Throughout the following results chapters the author attempts to 'tell the story' of Xerox at the time of the research. Whilst reading what follows, the reader is advised to bear the following sentiments in mind:

"Even though committed to empathy and multiple realities, it is the researcher who decided what is the case's own story, or at least what of the case's own story he or she will report. More will be pursued than was volunteered. Less will be reported than was learned.... It may be the case's own story, but it is the researcher's dressing of the case's own story (Stake, 1998:93)"

To conclude this Chapter, Diagram 2.1 on the following page summarises the complete methodological approach taken in this research.

Diagram 2.1 – *Summary of the Research Methodology*



Chapter 3

Process and Strategic Context

3.1 Introduction

Lincoln and Guba (1985) suggest that case study findings should include a description of the context in which the research is conducted. This Chapter provides such a description, and is the first of four chapters based on evidence obtained during the field engagement stage of this research.

The Chapter is structured of two approximate halves. The first half describes Xerox (UK) Ltd – the case site – as 'a process oriented organisation'. Frequent references were made to this 'process orientedness' in the previous chapters, and this quality of Xerox constituted one of the focal themes of the research inquiry – the others being 'IT' and 'Customer Engagement operations'.

The origins of this research are premised on the adoption by Xerox of process orientation as a mode of organising. At project inception Xerox were understood to be an exemplar of the process oriented organisation – and in this respect were close to peerless. At that time (c. 1996/7), the popularity of BPR was growing rapidly (see Chapter 1), but the set of organisations considered to *be* process oriented was small. A study of how Xerox leverage this process orientation and make use of IT in Customer Engagement operations was therefore considered an interesting, valuable and original project.

The first part of this Chapter provides a description of the 'process context' in which the research was conducted. That is, to locate and describe the processes within Xerox's overall process structure with which this project is ultimately concerned. These descriptions are 'generic' – descriptions of how they operate in practice are reserved for later Chapters. With these considerations in mind, the aim is to locate and describe those Customer Engagement processes upon which later Chapters will focus.

The second half of the Chapter describes Xerox's strategic context at the time of the field work. The context in which Xerox do business (in which Xerox people

work) is changing. It is changing rapidly and in fundamental ways. The drivers of this contextual change are two-fold. First, the market environment in which Xerox compete is changing. Second, Xerox is changing, and is re-positioning itself against the new market environment.

The second part of this Chapter provides firstly a description of the environmental changes facing Xerox, and the new market environment in which Xerox compete. Secondly, the strategy for attacking the new market environment is described. The description of this strategy is, like the earlier description of focal processes, more at the level of themes than detail. The strategy's full complexity, and its implications for the way Customer Engagement operations are carried out, will become apparent through a holistic reading of the four results chapters contained in this thesis.

Together the two halves of this Chapter provide an introduction to Xerox as a process oriented, changing organisation. Later chapters describe in detail the process oriented, and changing ways in which Xerox uses IT in Customer Engagement operations.

3.2 Xerox: a Process Oriented Organisation

In this section the overall process structure of Xerox is described. It is difficult to understand the specific results of this research without first possessing an understanding of Xerox's approach to organising by process. However, some elements in the description below, although based on evidence collected by the researcher, appear also in previous publications (eg Hewitt, 1997, Seltsikas, 1999). As there exists a degree of focus commonality between this and the previous research, it is reassuring (in terms of the trustworthiness of the present research) that this inquiry has resulted in findings, about areas of common focus, that are similar to those exhibited in that previous research. Nonetheless, the results in this thesis must focus on as yet unexplored areas of Xerox activity. Therefore, the findings below that relate to areas previously studied are presented in brief. References to previous work are provided, in which further details of these areas can be found.

In understanding Xerox as a process oriented organisation today, it is first important to answer the question of why Xerox chose, in the first instance, to become process oriented.

Xerox's process focus has its origins in the early 1980s, when threats arose to the very survival of Xerox as a viable organisation. These threats came from Japanese competitors. The severity of the threats was obvious: the Japanese firms possessed the capability to sell high quality photocopying machines for less than Xerox's cost of manufacture. In response to these threats Xerox 're-invented' itself as a Quality organisation:

[9, 6, 1999] "...OK – from where I sit, it's a Quality organisation with a capital Q. We began about 1983, in terms of quality, principally because we moved from a situation in the seventies whereby we had a monopoly in the marketplace, we had all the patents, which we then lost, and we moved very quickly, i.e. within two years from a 50% market share to a less than 5% market share – and we were going out of business. Against strong Japanese competition. On a world wide basis the then Chief Executive, a guy called David Kearns – who wrote the book 'Xerox: the American Samurai', and if you haven't read it get a copy – said 'well what can we do, from a business point of view, what can we do to resurrect ourselves?', because effectively the Japanese were selling kit cheaper than we could manufacture it... so we reverted to quality. Quality techniques, quality methodology, which meant investing in people like Deming [W.E. Deming] and Juran [J.M. Juran] and people like that. So, I mean, out of that, and out of any quality methodology comes a requirement for a process."

This segment of Xerox history is, unsurprisingly, remembered well by Xerox people:

[8, 18, 1999] "...I think it goes back to when we lost our patents and we nearly went out of business with the Japanese and we had to look at quality circles and processes, which brought the company back to where it should be and where it is now. So, processes and quality are strong things we will always benchmark against."

The story of Xerox's highly successful experiences with Total Quality Management is well documented. TQM requires the examination, measurement and continual improvement of processes, but the organisation-wide implementation of TQM is not equivalent to that organisation becoming 'process oriented'. TQM was, for Xerox, a precursor to the development of an organisation-wide (holistic) process orientation which, in turn, is adopted as a means to a still greater end: Customer Focus (for further details of this progression, see Seltsikas, 1999).

Xerox's first venture in Business Process Management began in 1987/8, with an attempt to re-engineer, at a multinational level, one of fourteen basic and critical business processes: Inventory Management and Logistics (IM&L). This effort was led by the researcher's academic supervisor – Dr. Fred Hewitt (Xerox Intranet). From 1988 Xerox took the first steps on the journey to becoming a Holistic, Process Oriented Organisation

Xerox see many benefits of being process oriented. The first of these, as indicated above, is that concentrating on processes:

[Xerox Intranet] "..forces the organisation to concentrate on the customer."

And:

[3, 8, 199] "...I mean we take so much for granted now that we've straight jacketed our people into a way of working, which is fantastic. You have a time of change, so we've cut out our inefficiencies... so there's a lot of strengths in that. Functional, the risk of functional you get blinkered, you get, it's the function wins rather than the company wins. Its not very customer oriented. I mean Marketing and Sales might be, but Finance won't. It gives a better understanding why at the end of the day customers won't pay one pound for the process. So you've just got to take as much cost out as you can, and simplify the process and get them straight and efficient."

Secondly, process management can impact positively on business results:

[15, 4, 1999] "...there's a very clear reason why we do that because – if I go back to the Go To Market strategy or whatever the strategy is, business anything to do with business – in the end it's all about getting productivity. Business Productivity. Our belief is to understand productivity you need to understand how work gets done, and that drives you into processes because you need, in fact the right way to express it is to say you need to understand how work gets done. A lot of companies are organised functionally, and one thing that's very clear when you look at how work gets done it doesn't get done functionally, it gets done across line. So I would say you always end up looking at processes because you aren't ultimately going to simplify, you can reduce cost by just hacking it away, but unless you look at how work gets done, and then try to restructure how work gets done to make it more efficient and more effective, you aren't going to end up with a very successful company – if you just hack away at cost, you do the usual thing, you cut your own pay budget. That's not what we're trying to do, so we always end up looking at process."

The possibility of breaking down functional boundaries within the organisation was a common theme of discussion. Organising around processes improves Xerox's ability to act effectively as a single, global organisation:

[16, 4, 1999] "I think that the process orientation is the fact that its such a large company, you need to have basic standards that you need to put down, that are ways of working so that when you do something in the UK, and you do something in the US and you do something in Germany, there is a basic understanding of the principles or the process, of how you got there. So that you don't have a major corporation that's working 65 different ways. You have 80% process, and then you've got your variations to country. So it's basically that I can go to Germany and understand in principle what they're doing because they're working to the same process, that we're doing in the UK."

Overall, the generic benefits of process orientation that were described by participants include:

- Improved customer focus.
- Improved productivity.
- Improved speed.
- Measuring accurately, and reducing the cost of how work gets done.
- Improved quality.
- Breaking functional barriers.
- Holistic approach to organisation.
- Ability to Manage By Fact.
- Increased standardisation, business simplification.
- Leveraging of technology.

And,

- Improved business results.

These benefits are generic in that they apply to the Xerox as a whole (and to each individual process). Detailed descriptions of how these factors apply to Customer Engagement processes specifically are contained in chapters 4, 5 & 6.

As well as generic benefits, a number of potential problems associated with Xerox's process orientation were revealed. For example, it became clear that problems had arisen through the implementation of the wrong process:

[16, 17, 1999] "... I think the right process is about improving quality, improving speed – the wrong process is an inhibitor, to getting things done... If you get the

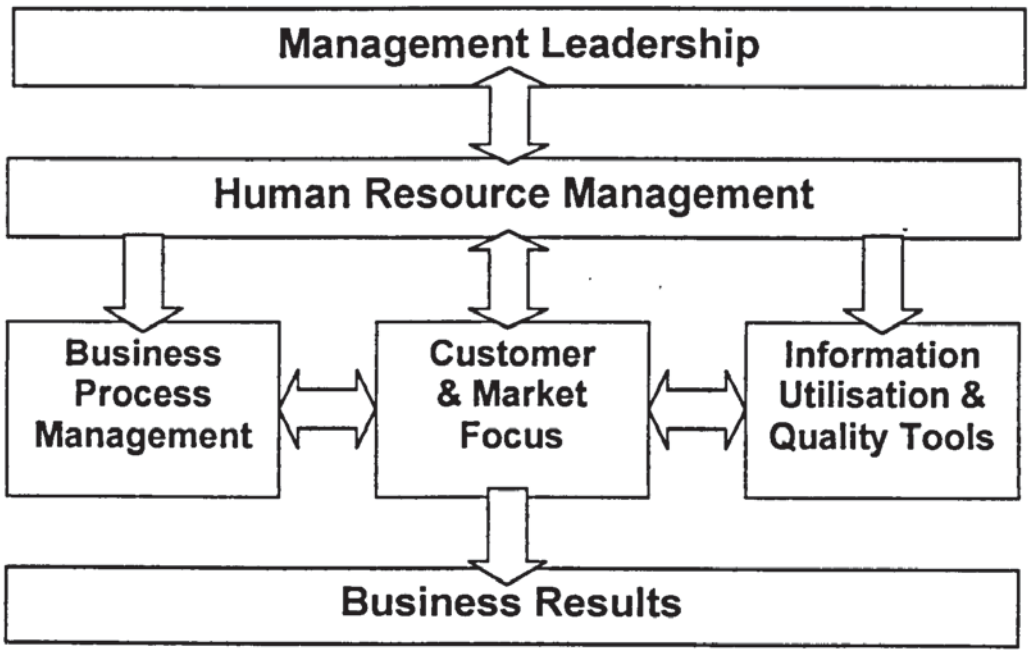
process wrong, it actually does the adverse to what you want to do. Therefore, that's why, that's why we're continually reengineering our processes to try to streamline them for the best effect. But we have been guilty of putting processes in that actually slow down the chain."

As with the advantages listed above, the problems Xerox encounter in organising by process are explained in later chapters – in more detail, and with reference to Customer Engagement operations.

3.2.1 The Process Structure of Xerox

By the time this research took place, Xerox had become a holistic, process oriented organisation. Business Process Management is now an integral part of the Xerox Management Model (XMM), and this model is ubiquitous throughout Xerox (details of the model's history can be found in Hewitt, 1997). As noted above, process focus is seen as a means to many ends – the greatest of these ends being Customer Focus. The XMM is shown in the diagram below.

Diagram 3.1 – *The Xerox Management Model [Xerox Intranet]*



Xerox's process focus is culturally embedded, as the following quote demonstrates:

[11, 58-66, 1999] "...Xerox is very process oriented, and it is in our culture to make sure that for everything we do there is a process behind it, so that it helps new people learn and understand the job they're supposed to be doing or the process that they are supposed to be carrying out. It also helps make sure you get consistency and conformity across the whole of that process area... the whole point about process orientation is that it it's not just about the sales cycle, it's absolutely we will help you learn to walk talk and breathe initially through following a set process. And then you become proficient at it and you do it you know naturally without even thinking about processes, but initially there was a process set down for you to do that."

The cultural element of Xerox's process orientation is important, and was regularly discussed in interviews. It is a frequent theme of these results chapters.

The process structure of Xerox is described in a document known as the Xerox Business Process Architecture (XBPA), or Xerox Business Architecture (XBA). This document describes Xerox in process terms and, as the name implies, describes in detail the design of the organisation. Xerox processes are hierarchical in structure and relationships. The document provides a description of the purpose of each process, and of the activities required to 'do' each sub-processes. Each process and sub-process is also numbered. The XBPA is a 'live' document containing references to 'Work In Progress' and 'Early Thoughts'. This is unsurprising because, as the quote above explained, Xerox are 'continually reengineering [their] processes to try to streamline them for the best effect'. At the highest level Xerox's architecture is comprised of six 'Core Processes' – these are:

1. Manage For Results (MFR)
2. Infrastructure
3. Time To Market (TTM)
4. Integrated Supply Chain (ISC)
5. Market To Collection (MTC)
6. Customer Services (CS)

Xerox processes are divided into three categories: Management Processes (MFR), Operational Processes (TTM, ISC, MTC, CS), and Enabling Processes (Infrastructure). The latter process type includes sub-processes such as 'Human Resources', 'Information Management' and 'Legal Services'. The distinction between Management and Operational (below referred to as 'Business Processes') processes is encapsulated in the following:

[17, 6, 1999] "...process effectively comes in a number of different levels, but primarily you have business process, and management process. Business Process is about – at a transactional level, it's about if you want to process an order how do you take that order from a piece of paper right through to delivering the product that the customer's ordered. Management process is around about the planning piece, the planning aspects, both, again from a strategic point of view – but also how do you take a strategic direction, and operationalise it so that the sales rep if you like, understands what part they play in delivering the strategic direction. Now, effectively, which is leading quite nicely onto the sales level – we have a generic process which we call managing for results – MFR – which effectively involves a sub-process which we call Policy Deployment, which is making the link between the strategic message and what the... sales rep is required to do, almost on a daily basis."

Operational (Business) Processes provide the structures through which work gets done 'on the ground'. Management Processes encompass the procedures through which work (in Operational Processes) is directed and controlled. Infrastructure Processes maintain the environment in which Xerox employees carry out Operational and Management Processes (further detail concerning types of Xerox process and the Xerox model of process management at a generic (organisation wide) level can be found in Seltsikas, 1999).

3.2.2 Focal Processes

This research is targeted primarily at understanding Xerox activity within a specific set of Operational processes, and how those processes are managed. It seeks understanding of a specific set of processes.

As the reader will recall, the initial research brief targeted the use of 'IT in Marketing and Sales by process oriented organisations', and that the research was initially concerned with the Face to Face (from here F2F) channel. The researcher soon learned that 'face to face selling' was represented in the XBPA as the 'Selling Process' (process number 5.7), and that this was a sub-process of the MTC core process. The MTC core process is described in the XBPA (31/10/96) as follows:

"Market To Collection Core Process provides the understanding of our markets and customers, develops the strategies to reach our markets and our customers, finds and understands customers and their needs, proposes document solutions to customers, takes orders, assures order satisfaction and generates revenue

from customers. This process is the focal point for developing and managing Xerox relationship with customers."

The Selling Process remained the focal process of the research throughout. This process, as Chapters 4, 5 and 6 explain, represents the organising structure of all of the Customer Engagement activities considered in this thesis. Aside from F2F selling, two other direct modes of customer engagement activity are examined: Telebusiness and Ebusiness. The decision to target these channels was taken following comments by participants early in the field research, like:

[12, 92 –100, 1998] "...I think you ought to look at Teleselling, sales cycles and Teleselling – one of the things you ought to look at is selling cycles using Teleselling. And the reason I say this is it would be very interesting for you, I think, to compare... So one of the big sales enablers is Teleselling, so selling over the phone... so what is the impact Teleselling is having in terms of improving productivity. What impact does it have in sales cycles, how does it, how is it utilised... and the next question I'd ask you after that is, where does the Internet, something on the Net, how does that impact that. You ought to consider that as well."

The Selling Process is critical in the organisation and integration of these channels. The Xerox Selling Process, as described in the XBPA (31/10/99):

"Executes the set of processes that defines the complete sales cycle and which have the net objective of gaining Customer commitment to a Solution (offered by Xerox and 3rd party partners) that will add value to the Customer's business operations and generate a profitable revenue stream for Xerox.

The end-to-end Selling process begins with the Identification & Prioritization of potential prospects, and continues through Customer requirements analysis, Solutions development & negotiation, and ends with order acceptance.

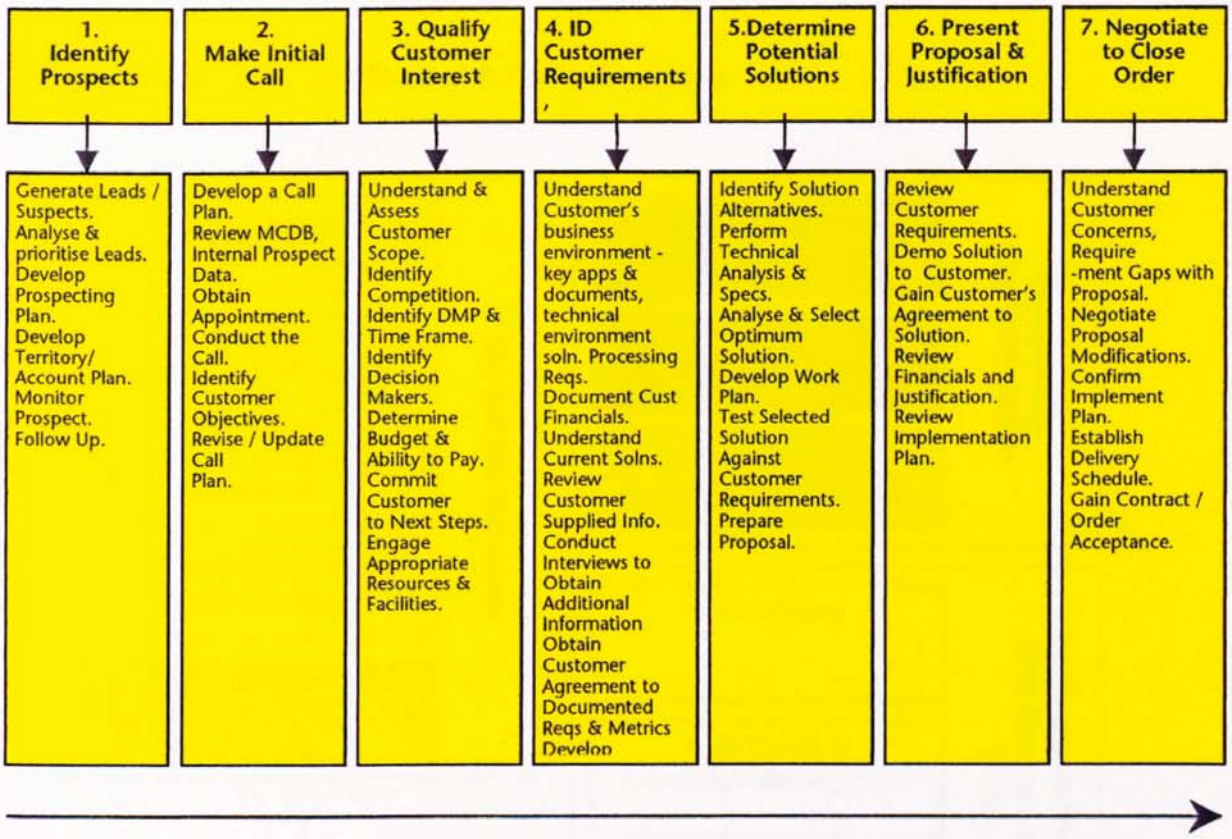
Key to this process is the reuse of knowledge about Customer requirements, achieved solutions, resource availability (both human and goods), and applications send technical expertise expertise [sic] that can be rapidly tapped (as part of a virtual team) to shape a Solution to gain Customer commitment."

It comprises seven sub-processes (processes 5.7.1 to 5.7.7), but is now regularly extended to include a further three 'Order to Installation' activities / sub-processes (see Chapter 4). The seven sub-processes are shown in Diagram 3.2 below.

Although this process remained the central focus of the research, it became evident – as it also had regarding the decision to broaden the channels of interest – that this process could not be understood in isolation. The researcher began to

appreciate the 'holistic' nature of Xerox's process orientation. As stated in chapter 2, the 'design' of this research is emergent. The researcher did not know, at the outset, which of Xerox's processes would prove to be important in 'using IT for Customer Engagement operations' – or how these processes might look. As the research progressed it became clear, through discussion with participants, that the ways in which the Selling Process is performed are in many ways influenced by other MTC and MFR processes

Diagram 3.2 – *The Xerox Selling Process [XBA]*

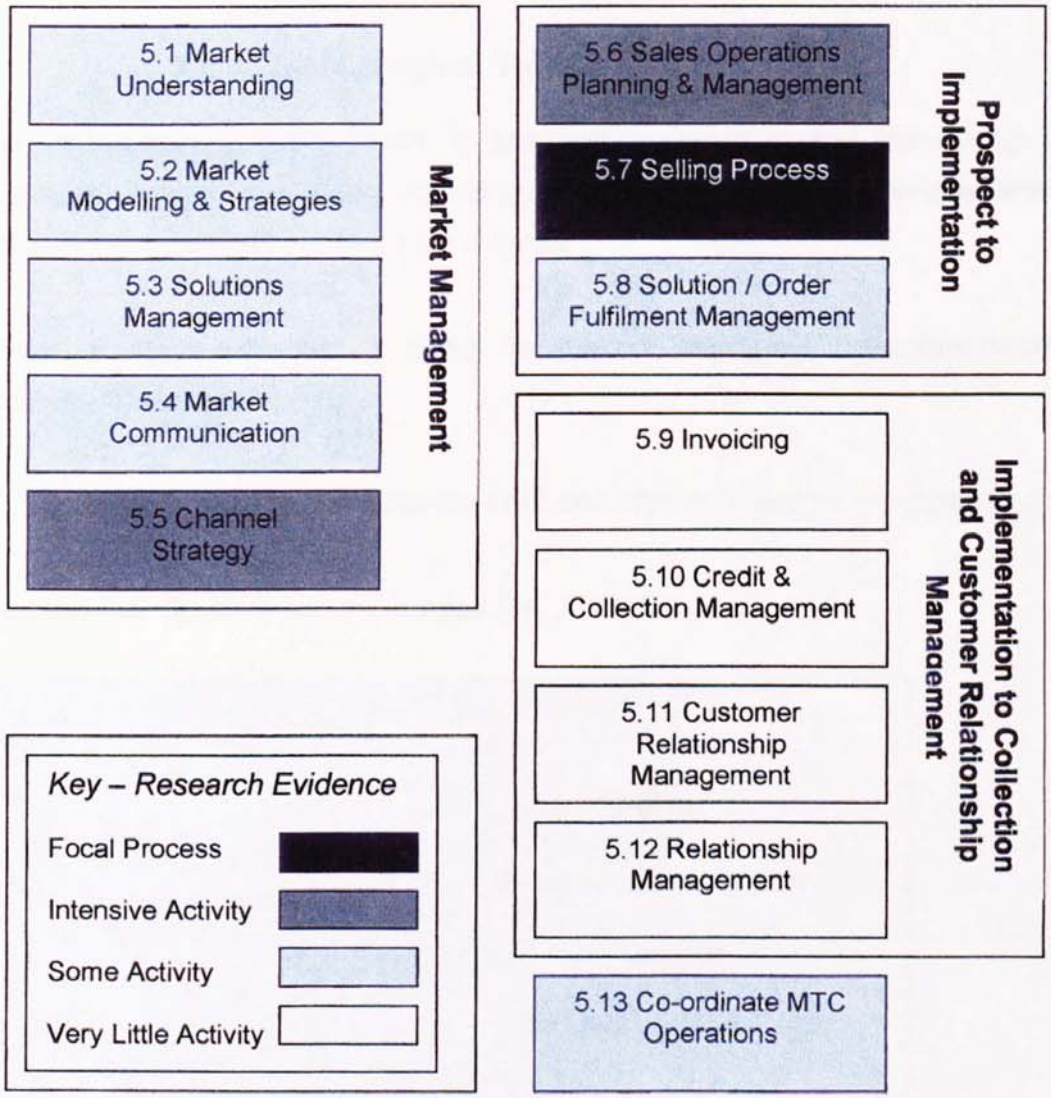


[15, 8, 1999] "...you probably need to go back a bit into the business process architecture because that's the, the ten step [Selling Process plus 'Solution/Order Fulfilment Management] is the Selling Process - if you look at the architecture prior to that there's an awful lot going on that makes those ten steps useful. I can't recall the whole architecture but you certainly go into a whole area called understand the market (Market Understanding) yes, there's a whole area called Market Understanding. Now, our belief is the better job you do there the better you're targeting your sales force and then the easier the ten steps become... Before you get to the actual selling process there's a lot going on."

Important MFR activities are described in later Chapters. The other MTC processes with which the research became concerned are identified below.

The MTC core process is composed of three high level sub-processes: 'Market Management', 'Prospect to Implementation' and 'Implementation to Collection & Customer Relationship Management'. These three sub-processes are composed of 13 further sub-processes (the 7th being the Selling Process). As with the Selling Process, each of the 13 MTC sub-processes is composed of further sub-processes. The relationships between MTC and these sub-processes is shown in Diagram 3.3 below. The diagram also denotes the degree to which evidence concerning each sub-process contributes to the findings presented in Chapters 4, 5 & 6.

Diagram 3.3 – *MTC and Research Focal Processes*



The above, though brief, provides a description of the process context in which this research took place. At this point Xerox are labelled confidently as a holistic, process oriented organisation. The processes upon which this research has focused have been located and described generically.

The second half of this chapter describes the strategic context in which Xerox do business. First an overview of Xerox's competitive market environment is provided: its key features and trends. Second, the key features of the strategy through which Xerox attacks this marketplace are described.

3.3 Xerox's Strategic Context

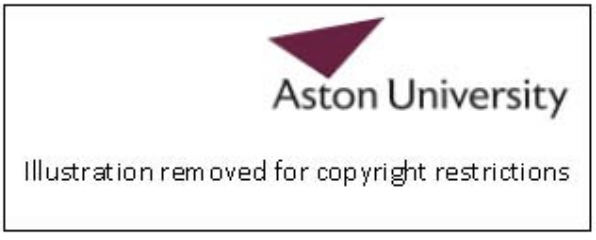
3.3.1 Technological Trends

The environment in which Xerox do business is changing, and this change is heavily influenced by evolving technology. The key technological changes facing Xerox are summarised in Diagram 3.4 below.

These changes represent a threat to Xerox's traditional (analogue/copier) business. There exists:

[10, 24, 1999] "...a huge convergence of IT and copying – and all the digital stuff."

Diagram 3.4 - *Technological Changes [14, p1, 1999]*



Xerox now compete in the digital market, and face the concomitant challenges that entry into this market brings. Xerox face new competitors, and different demands from customers. Xerox are moving in to the digital market because:

[14, 32, 1999] "Otherwise we're going to get left behind. And we have been worried as an organisation for the last three years, our year on, our revenue growth in the last three years has only been 6%. Now we are a profitable company. We've got a profit margin of about 47%. But we need it, because our costs are much higher. Certainly than our new competitors. Because we're moving into the digital market. Now we're moving into that not just because our competitors are moving into it, but because the demand for analogue products is disappearing. The old light lens copiers, the revenues for those has dropped say 60% in the last 3 years. And the market wants digital products now. Things that you can hang onto networks, and connect and will do things. So we're going to get in there, and we're making enemies of people like Hewlett Packard, because they're already in there and they're very successful, and if you take them on you've got to be serious. So we realised that the old business model wasn't working any more. Or rather it does work, it still generates a lot of profit. But if we don't change now while we're strong we're going to have to change later when we're weak. Because it'll bleed us dry."

And:

[7, 44, 1999] "...it is the industry dynamics which are forcing this. We don't have a choice, it's not a 'oh we think we'll do this' - if we don't do it then the industry will move around us."

Benchmark figures show that Xerox did (in 1997) enjoy superior profit margins to their new digital competitors, but that revenue growth compared unfavourably. Established competitors in the digital marketplace are achieving markedly superior growth to that achieved by Xerox. Comparative gross profit and revenue figures are shown in Table 3.1 on the following page.

Xerox believed that their traditional business model was not appropriate to the new competitive environment: it was too costly and generated inadequate revenue growth. The market in which Xerox now compete is growing rapidly. Its size was assessed through in-depth research conducted in partnership with outside agencies. In summary this research showed that in 1996 the UK total 'realisable' (within Xerox's technological reach) combined copy and print office document market (excludes the SoHo (Small Office/Home Office) market) consisted of 238 billion pages per year. Of that volume, Xerox's share equalled 35 billion pages: a 15% market share [7, p8, 1999]. This leaves an available market

opportunity volume of 203 billion pages. The available UK market document volume and Xerox's share of each segment (1996) is shown in Table 3.2 below.

Table 3.1 - *Competitive Gross Profit and Revenue Figures [14, p7&8, 1999]*

		Digital Competitors				Other Competitors	
	Xerox	**IBM**	**H-P**	**Compaq**	**Dell**	**Canon**	**Ikon**
Gross Profit Margin (%)	47	39	34	27	22	45	43
Revenue Growth 1994–1997 -%	6	7	20	26	53	14	29

Table 3.2 – *UK Market Volume & Xerox Market Share (1996) [7, p8, 1999]*

	Office Copies	*Office Prints*	*Data Centres*	*CRD*	*Quick Commercial Printers*
Available Volume	61bn	38bn	37bn	28bn	74bn
Xerox Volume	15bn	0.4bn	7.2bn	6.6bn	5.5bn
Market Share	15%	1%	19%	24%	7%

The research also identified the share of the available document volume by industry. These figures are shown in Diagram 3.5 overleaf.

The above demonstrates that there exists for Xerox ample opportunity for improved revenue growth. The remainder of this Chapter describes, at a basic level, the strategy Xerox are following in the targeting of this opportunity. Again, further details follow in later results Chapters. The strategy entails fundamental

changes to the Xerox business model, and aims to deliver double digit revenue growth and a lower cost of sale. In short, the Go To Market strategy is a vehicle to the creation of 'a different kind of Xerox' [13, p1, 1999].

Diagram 3.5 – *UK Market Volume by Segment [7, p8, 1999] (Rounded figures)*

3.3.2 The Go To Market Strategy

As stated above, the Go To Market strategy was designed with the aim of enabling Xerox to compete successfully in the digital document marketplace. The strategy is premised on market research which revealed a voluminous and potentially realisable market opportunity. The market research also sought to understand how and where customers bought equipment and services in the UK document market. It revealed to Xerox obvious limitations in their traditional business model.

It became clear that Xerox were not covering the market in an effective way. The research examined in detail who in organisations was responsible for purchasing equipment and services (decision makers and influencers – the Decision Making Unit (DMU)); where equipment and services were acquired (direct from manufacturer, through retailers etc); and how equipment and services were acquired (over the telephone, through a meeting with a sales rep, by visiting

shops etc). It looked also at current and future trends. The buying behaviour was studied by industry sector, and by region. The research found that the 'hows', 'whys' and 'wheres' of customer buying decisions were changing.

Before Go To Market, Xerox saturated the direct (F2F) part of the market, but had only a small presence elsewhere [7, p10, 1999]. However, research showed that in order to tap the voluminous opportunity identified – in order to increase market share – Xerox would have to build presence in other channels also. Xerox were [14, p7, 1999]:

- *"Not participating in enough buying decisions*
- *More focused on current customers than new customers*
- *Overly reliant on "feet on the street"*
- *Overly reliant on push versus pull."*

Overreliance on the F2F channel meant that much of the market opportunity was effectively out of Xerox's reach. Whilst working through the market research with the researcher, one participant began to explain the importance of building presence in alternative channels:

[18, 166, 1998] "...So this is looking across different products, yeah, in fact low volume laser, mid volume laser, colour laser, low volume copiers, high volume copiers - so if you take our mainstay which is sort of the copier bit here - its something like 15% are bought direct. The rest are going through other channels which we don't necessarily operate in, which is one of the reasons that we're changing... And dealing with large, say National Government, you would have thought they'd bought from manufacturers - they don't - you know, these high volume copiers there's only 22% are going through direct - the rest are going through dealers, buying consortia, VARs [Value Added Re-Sellers], all different things. Its all over the place."

The difference in buying behaviour between copiers and printers became clear also:

[18, 148, 1998] "...Yeah, well this is modelling of who buys and how they buy. This is where they bought. So they're buying document - dealers, retail, buying consortia etc. So you'll find IT management are buying here, so 38% would say from a direct sales force. And 39% through dealers, so the MD or the Secretary is going down the high street looking for a dealer, that's just for copiers. Whereas printers is a very different picture - so you're IT management one, or the purchasing function in this one - are going and buying 50% direct. But with printers its only 10%. Printers versus copiers."

The trends in buying behaviour, and their significance for Xerox organisation were then clarified:

[18, 168, 1998] "That's just a fact example. You know how we're organised, our Key Corporate sales, Named Accounts, LLGM Local Government and National Government (see 'Sectorisation of the Salesforce below) - these are huge variances of how people buy. That, the Sales Process has got to map onto that. There's a lot more detail there. Within the, there are some key trends in there, and you find that in the copier market, [the] number of people that are buying them from dealers is actually dropping off, and people are moving to buying a lot more from retail. They're actually going away from dealers and buying from retailer. In the IT market they're already well ahead there. But the trouble is with copiers, we're moving to digital, we're going that way - and the copier then becomes a printer. So not only have we got to do catch up to get to there, in fact we're moving into this situation. So 4% direct, 37% dealers, 36% retail. And you've got to have a direct response, otherwise...."

So, to reiterate, Xerox found that customer buying behaviour – the whos, wheres, hows and whys of equipment and service purchasing – varied according to the product type, and customer type (industry sector). Xerox, through an overreliance on the F2F channel, were not participating in enough buying decisions. The voluminous market opportunity identified was effectively out of Xerox's organisational reach. The Go To Market strategy is designed to remedy this shortcoming.

Go To Market aims to deliver, by 2001, double digit revenue growth (from $400m in 1997 to $880m in 2001), and a selling Expense to Revenue (E:R) ratio of 11.5% (from 18.1% in 1997). To achieve these results, many changes in the Xerox business model were deemed necessary. The key themes of the Go To Market strategy are summarised below. The details of each element are described further in later chapters.

3.3.2.1 Sectorisation of the Sales Force

In 1999 Xerox market engagement activity was re-organised into two divisions: Industry Solutions Operations (ISO), and General Markets Operations (GMO). The F2F sales force was reorganised into four industry sectors: Top 200 Commercial, Graphic Arts, Public Sector and General Markets. The Sectorisation of the F2F sales force is undertaken with the aim of focussing F2F effort on high value, industry specific solutions. The reorganisation aims to:

"Focus field sales resources on high value, new systems sales, solutions and outsourcing transactions" [14, p9, 1999].

It is another element in Xerox's Customer Focus:

[2, 18, 1999] "...that's, that's, in a nutshell really what the re-organisation is about - to form a clearer line of sight to the customer. Understand the customer's industry or sector, for the public sector, because within the Public Sector they have specific issues. And if you take the sub-sectors of those like the Police force, the Central Government, Local Government, Education, Higher and Lower Education - they have specific areas where they have issues."

3.3.2.2 Optimal Channel Mix

This element of the Go To Market strategy is concerned with the targeting of overall Customer Engagement resources in an efficient and effective way. The desired state is for Xerox to be "present in the customers channel of preference, [to] get more customers to come to us, [and to] participant in a more cost efficient, effective manner" [14, p8, 1999]. For Xerox this involves the opening of new channels, and the development of existing channels. The targets for channel mix are shown in Table 3.3 [7, p19, 1999].

Table 3.3 – *Xerox (UK) Go To Market Channel Mix [7, p19, 1999]*

	1997		*2001*	
	Revenue ($m)	**% of Total**	**Revenue ($m)**	**% of Total**
Xerox Fulfilled				
Face to Face	347	87	468	53
Telebusiness	-	-	92	10
Ecommerce	-	-	31	4
Dealers / CCSS	35	9	164	19
VAR/SI	12	3	96	11
Retail	6	1	19	2
Xerox Direct	0	0	10	1
	400	100	880	100

The rationale driving the new channel strategy is introduced in the following:

[1, 152, 1999] "...its not only the offerings which we are selling that will be matched to the channel - so we have products that purely go through a channel - but also the types of accounts. So our Go To Market restructuring... is purely looking at saying that we should focus on industry sectors and, so we really, I was going to say, specialise in line with our customers. Now, not only is that specialisation saying - Finance sector, we know how banks work, that's why we should always sell to banks, this group of people - but it also says that if you have at the other end, you know small businesses that don't really, you don't get much return out of them - then you should never cover them with Face to Face. I mean, you know you need to look at how much it costs you to have a face to face salesperson, and how much revenue they would generate out of those accounts and say, they shouldn't be Face to Face, they should be Telephone or they should be Mail or should be, you know, Ecommerce - that should be Ecommerce that one."

The mix of Customer Engagement channels employed is changing in important ways:

[5, 33, 199] "...we have the opportunity to do it now, I wouldn't say that we've done it. A lot of people are trying to do it, and it is by changing the mix of sales force - from a predominantly direct sales force with a few dealers out there, to integrating it with Ecommerce, Telebusiness - which I see as fundamental structural changes to sales force - and therefore will drive, will drive out their own productivities. And the productivity may not be increase the revenue per person, but it would be, it might be a cost saving productivity rather than a revenue increasing productivity. So I think those are fundamental sales force changes..."

3.3.2.3 Intelligent Coverage

Intelligent Coverage is based on Xerox's belief that increased coverage of the market drives increased business. As noted above, Xerox's Customer Engagement effort was traditionally F2F intensive, and as a result of this 'over reliance on feet on the street' much of the identified market opportunity was beyond Xerox's reach. Intelligent Coverage is defined as a 'sales philosophy' – and is central to the Go To Market strategy. 'Sectorisation of the Salesforce' and 'Optimal Channel Mix' can be regarded as sub-disciplines of the Intelligent Coverage philosophy.

Intelligent Coverage is about contacting customers using multiple modes of communication (F2F, telephone, mailers), at the right times with the correct

message. A key assumption is that all potential decision makers in the market should be contacted four times per year, in an 'intelligent' way:

[15, 56, 1999] "the matching of the resources is the Intelligent Coverage... Matching the appropriate resource to the market is what the word intelligent means. Unintelligent coverage is just say, give you an example of unintelligent, it's just I want every customer - every potential customer in the UK to have four contacts a year. Now, lets work out how I can give them four contacts a year. A salesman can do this much, a telephone.. da da da, that's not intelligent, that's just banging away, that's just using a sledgehammer, and its very expensive. Because what you could do you could say 'right, I'll hire hundreds of thousands of sales people and have them all call on everybody in the country'. Intelligent coverage is properly map..., is trying to do the market planning to say - OK these are, this is the segment of the market we need, so this is the segment we need, so now I'll do my resource against that."

The development, and processual nature of Intelligent Coverage is made plain through illustration in the extended quote below.

[5, 86-88, 1999] "Intelligent coverage is going to where I started with the coverage contract, that says we started with a spray everything - because we know... I'm simple me, you start from the bit that says you know coverage is right, so lets get coverage today, can start - what we then do as we go through is we learn, we should get smarter - and OK that shouldn't be four visits, it should be two phone calls, and those two phone calls should get done by the Telebusiness Centre, and you shouldn't call that one because they've got no role, they don't even have any kit, they'll never get any kit, take it out. This one is, its all down to coverage, it's not just the coverage but who do you talk to. This might be if you go into a high street shop, if you went to Tesco's in Solihull, they might have a copier in the back office. They have no say over what they buy - because somebody in head office, wherever it is, London or wherever makes the decision. All they are is a recipient of it. Having said that you then need to start to understand how much can they influence that decision. So what you might say is... we've got a programme on now which is Aladdin which is taking old pieces of kit and trying to get rid of them. And we can try and try and try - no can't take it out. We've got a programme to get rid of them because there's too much service on them. And the approach we've taken is, is to say OK, we've tried for years to shift these on a cart - so we're talking to the decision maker in London - but we're doing all the Telesales to people, and what they're actually doing is calling them every month, but month 1 speak to the end user, actually say 'Yeah that's crap isn't it - its giving you big problems isn't it' - or something – so I'm picking up the vibes. Number 2 they call the person again, and 'Is it still as bad as it was?' - yeah der-di-der. Number 3 they call the decision maker – 'You've got this machine, Fanny down on the shop floor says that it, she's just not happy with it, it's your role, do you choose to der der der - lets try do something about it. End user, end user, decision maker. As a month by month by month. So that's where you start to bring in the intelligence...

"So it's which face off against it best. Who, which channel are you going to use - that's the intelligence - who you're going to talk to within that organisation, is the intelligence. How often you're going to talk to them is the intelligence, and the

conversation you're then going to have with that person is the intelligence. So it's probably a four or five tiered intelligence piece. That says, the first thing is coverage works, so lets talk to every body. You can't afford to maintain that because you're over informing in terms of you know certain people don't need it, so over time you - so you're expensive sales person - you rifle shot and say this is the person you should go and speak to and have a strategic discussion, about where the IT business is going over the next five years, so you go and do it and I'm happy that you're only doing two calls a day because they're big in depth, whilst the TeleSales person whose speaking to the Tesco's shop floors can make ten calls an hour and they'll feel loved. And that's the intelligence and that's where we're getting to..."

Intelligent Coverage can be summarised as follows:

[8, 87, 1999] "...it's mailing or calling, using Telebusiness or Mailing customers with the right product information, something that's going to interest them, at the right times. Not sending a Mailer on a high volume device if they only bought one of those say four months ago. Not being asked to send campaigns on high volume print room machines to people that haven't got print rooms." Etc.

The above describes in brief the key strands of the Go To Market strategy. The strategy's full complexity will become apparent with a reading of the following Chapters. For now it is sufficient to indicate the significance of the changes occurring in Xerox. Their significance is that they represent the fundamental re-design of the Xerox business model.

[15, 116-120, 1999] "...that's process reengineering, at the very grand scale. And people are doing that all over the place so, this is the real final word on Xerox is that one thing that, one trend in the modern market place is - any proven business model will be made redundant much quicker than it ever did before. You know, if this is the way you always did it, and it's a proven success model, Xerox - face to face sales force, built the company- it's redundant. Michael Dell and Compaq, people changed that years ago, they changed the rules. So if you aren't looking at your company all the time saying how can I change the rules, you just can't sit back and say 'oh this business model has lasted me for the last fifty years, its bound to be good, and its successful' - it ain't. It ain't. One will, somebody will come in and change it. Amazon.com, somebody will come in and change it... Well I'll tell you what, it is a perpetual change, it's a frightening level of change, a frightening level of change – and it's not just minor change it is, it's the whole business model."

The Go To Market strategy represents a radical break with Xerox's past. It entails a fundamental re-structuring of the business. Results Chapters 4, 5 & 6 describe in detail the way Customer Engagement operations work in this 'different kind of Xerox'. To conclude this Chapter, the role of the Go To Market strategy in the global Xerox organisation is summarised:

[7, 22, 1999] "...this is a presentation given by my, a Director who's left now, he's moved onto another role, to Thoman - who's the top man in Xerox bar one - so he's the he's the Chief Executive Officer in, he will be in a year's time. He came to this country from, he's the man who bailed out IBM, he didn't bail them out he, he took them through the recovery, so he came to Xerox and he was in the States for sort of three to six months, then he started travelling round, and he came here to see what we were doing, and his comments are, to this presentation was – 'I've been waiting since I've been in Xerox to hear somebody even mention these things, this is exactly what you should be doing'. So it, on the basis of that the UK, you know Xerox in the UK was seen as the benchmark for the rest of the world in terms of our strategy."

Chapter 4

F2F Productivity at Xerox

4.1 Introduction

This chapter presents the research findings, from interview and documentary evidence, pertaining to the Face to Face (F2F) element of Xerox's direct Customer Engagement channel mix. It is the second of four results chapters contained in this thesis. Findings about the other direct Customer Engagement channels studied – Telebusiness and Ebusiness – are presented in Chapter 5. Xerox's use of IT in the three Customer Engagement channels is the subject of Chapter 6. Following Lincoln & Guba's (1985) recommendations concerning the structure and content of case report writing, this and the following two results chapters aim to provide for the reader:

- *A description of the transactions or processes observed in the research context that are relevant to the problem.*
- *A discussion of the saliences that are identified at the site; that is, those elements identified as important that are studied in depth.*

The process and strategic context of this research was the subject of Chapter 3. This Chapter describes the practices and issues, concerning the F2F element of Xerox's Customer Engagement operations, that participants identified as important in the delivery of the Go To Market strategy. As indicated in Chapters 2 and 3, it is difficult to understand Xerox's approach to Customer Engagement in a 'reductionist' way. That is, it is difficult to study or define any channel in isolation. The effectiveness of each channel is to a great extent dependent on operations performed in other channels: Xerox employ a holistic approach to Market and Customer Engagement. This will become ever more apparent as the presentation of results in this and following Chapters continues, and as conclusions are drawn in Chapter 7.

This Chapter's central theme is Xerox's approach to F2F Sales Productivity, and the role process based selling plays in productivity improvement. Chapter 3 summarised the three essential elements of Xerox's Go To Market strategy:

Sectorisation of the Salesforce, Optimal Channel Mix and Intelligent Coverage. These elements are closely interlinked, and each has a bearing on Xerox's attempts to improve the productivity of customer engagement operations. Xerox documentation states that "our sales philosophy is one of 'Intelligent Coverage'" [18, p10, 1999]. Sectorisation of the Sales Force, and Optimal Channel Mix represent constituent elements of this guiding philosophy.

Go To Market involves the redesign of each channel's role in Xerox's overall Customer Engagement operations. This chapter begins with a re-introduction of the Xerox Selling Process – its structure and purpose. This is followed by a description of Xerox's channel strategy, and the role the F2F channel now plays.

4.2 What is the Selling Process?

The Xerox Selling Process represents the complete set of activities involved in the sale of a good, service or solution. It has seven or ten stages depending on where the end-point of a sale is defined. The Selling Process consists of seven stages if the sale is considered complete when an order is taken. It is ten stages long if the process includes those activities up to and including the implementation of an order. The latter definition is now preferred:

[1, 24, 1999] "...it was seven originally, we've changed to ten now."

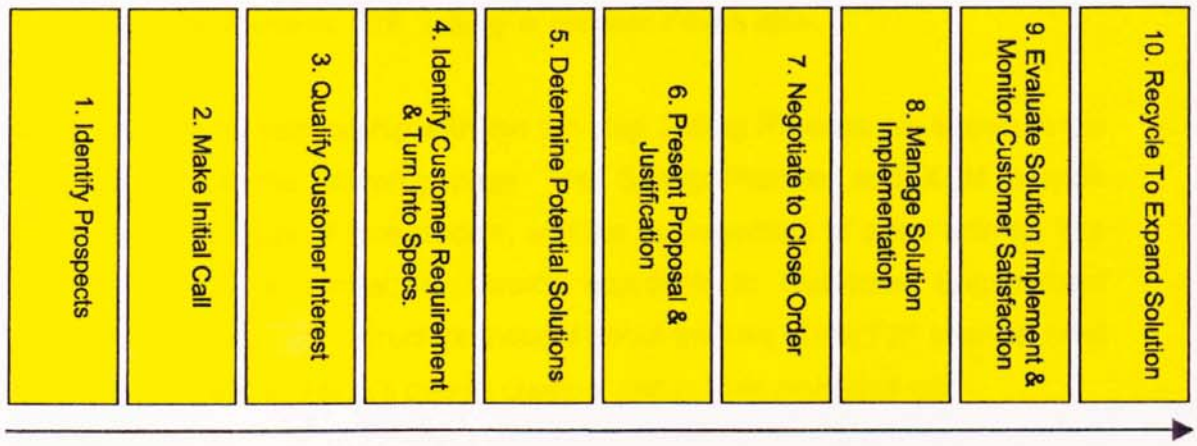
Xerox now define the Selling Process as including ten stages...

[14, 92, 1999] "...simply because there are back office systems being developed now which will give us another three steps on there, which enable you to schedule delivery and things like that. Things that salespeople can't do at the moment, they can't see the warehouse – don't know how many we've got in stock, don't know when we can deliver it, but these will give them the ability to do that."

Diagram 4.1 overleaf shows the complete ten step selling process. The Selling Process represents the ten distinct, identifiable stages which together comprise the archetypal selling cycle. The process describes the generic structure of a complete sale, and contains the total set of tasks involved in selling. The Selling Process can also be seen as a structure for the management of selling activity (see Section 4.6 below). However, it does not represent a 'how to' guide to selling

techniques. It does not detail instructions for success in aspects of selling such as 'Getting Through', 'Searching for Problems and Opportunities' and 'Closing' etc. The relationship between the ten step Selling Process and 'selling' is clarified in the following:

Diagram 4.1 – *The Xerox Ten Stage Selling Process (XBPA)*



[6, 2, 1998] "...we are a process driven organisation, which you've probably found. And there is a defined sales process, but there are a number of, there is a kind of, the seven step Selling Process you know from prospecting, identifying suspect and... but there's a, there's what you use within the sale, there's another selling process within the Face to Face opportunity. So there's the steps of selling, and then identifying the activities that are associated with those, and there's the bit of, having got to that point in the process, what process do you then use. You know, there's a kind of methodology to the way people sell as well."

And:

[5, 14, 1999] "I'm not sure that the ten step Selling Process is a selling process. It's a set of measures at different stages of the sale process – but it's not the selling process in its own right. The process that they use for selling, in terms of who they engage, probing triangles, all the steps that they go through to do the sale itself is embedded, isn't in any of those ten steps in its own right – it's their own sub-processes within those things. This ten step Selling Process is just ten steps that identified – that are relevant points within that process. But it's not the selling itself."

The Selling Process describes the discrete activities that are involved in the process of selling, but does not of itself make selling any easier:

[5, 20, 1999] "...the ten step Selling Process is here is literally just the check points in it. It adds to the way we look at that and measure it. It itself adds no

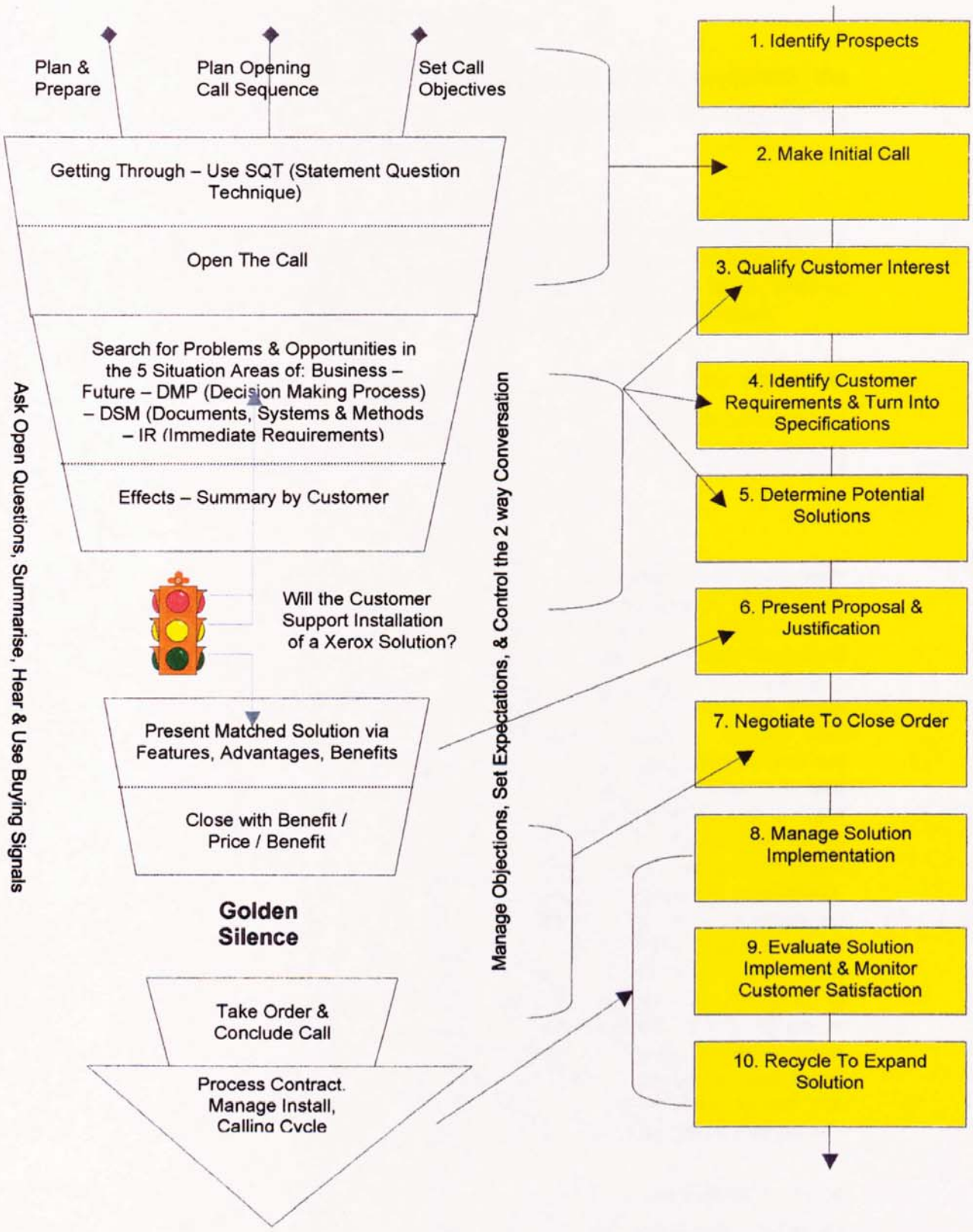
value itself to selling, doesn't make selling easier, doesn't tell people what questions to ask or whatever – or how to overcome anything – it's purely the measurement to say where you are..."

The 'methodology' and 'selling itself' alluded to in the quotes above are structured through processes described in the Xerox Selling Model (XSM). The XSM contains sub-processes used by salespeople in and around 'the Face to Face opportunity'. Each of the processes in the XSM can be matched to a stage in the ten step Selling Process. F2F 'selling' is process driven also.

The XSM, and its relationship with the ten step Selling Process are shown in the Diagram 4.2 on the following page. The Selling Process and XSM provide structure for the work of salespeople, and the management of sales activity. The Selling Process is central to Xerox's approach to Customer Engagement productivity - it is used to structure thought about the role of the F2F channel (and all other channels) in Xerox's overall channel and market coverage mix

Evidence about Xerox's approach to the management of F2F sales activity is presented in later sections (see Section 4.6). The findings of this research concerning Xerox's approach to the improvement of F2F productivity are presented below.

Diagram 4.2 – *The Selling Process and XSM [adapted from 19, p3, 1998]*



4.3 Xerox Approach To Customer Engagement Productivity

4.3.1 Holistic Sales Productivity

Xerox have traditionally employed two channels of customer engagement: the direct F2F channel, and the indirect Concessionaires channel. Coverage of the market was driven by these two channels only:

[3, 52, 1999] "That's the kind of old traditional model that we had, we basically said 'look, we're going to cover the whole country and where we're not covering it by a direct Face to Face salesperson we'll cover it with a concessionaire. They're a Xerox affiliated company – we don't really have a lot of control over them"

Initiatives aimed at improving revenue growth have in the past been directed at improving the productivity of F2F salespeople. The general approach has been to increase the time F2F salespeople spend actually 'selling' – rather than working on administrative tasks. The traditional approach is as follows:

[5, 28, 1999] "sales force productivity... we've been chasing it for years and I think everybody else has. It's elusive... Historically we've been looking at sales force productivity that says 'how do you get more revenue per man or more units per man out of what you currently get?', and within - without doing anything structural you were trying to put in little support processes around it to say, 'OK - lets give them the MDB [Market Data Base – see Chapter 6], lets devise all these processes...' We went through a programme called Horizon - which was supposed to take some of the admin. work away from the sales people, and we had a role called CSS - Customer Support Specialists - which basically, we used to be organised, five years ago we had sales people in a sales team, and a team of people who used to process orders. They looked at all the processes within that and said – 'Hang on - these sales people are doing a lot of admin time that's not good selling', so they looked at all the processes and simplified everything, and put in this CSS role - which was basically perceived to say 'your no longer an order taker', they own more of the process - because there's quite a lot of processes in subsequent to taking an order in terms of customer sat [isfaction] measurement, and checking the leads are all going OK. So they were designed to put those types of, to do those types of processes to release the others. So we've done all these bits around the edge, and it all worked to a degree, but they never seemed to, you take them you implement them and then you seem to have stood still. What I don't know is, the question is, if you hadn't done them would you actually have gone backwards. Which is, you have to run to stay still sometimes."

The Go To Market re-structuring is seen as an opportunity to examine sales force productivity in a different way. With hindsight, previous F2F productivity initiatives were seen to be targeted at incremental process improvements, rather than

changing fundamentally the way in which selling work gets done. They involved changing elements of the Selling Process at a superficial level.

[5, 28, 1999] "I think that approach to productivity was tinkering around the edges, and I guess the changes that we've, just going through now in terms of looking at, in terms of the whole Go To Market strategy, actually fundamentally changes the paradigm in which you're in, and in which you're going to alter sales force productivity. Because like I say, we changed little bits around the edge of the process without actually fundamentally changing the way they do it. The Go To Market gives us the opportunity... we have to fundamentally change the way we do it. And its, I guess what I was going to pick up one was to say sales force productivity was exactly how we used to do it, it's a fundamental change we've gone through now with Go To Market and the introduction of Telebusiness, Ecommerce, whatever. I don't think its right to call it sales force productivity any more. Its sales productivity, because your sales force might be, this might be a traditional view of sales force, your sales force might be a PC on the internet, so from that perspective we've changed the paradigm that we're operating and measuring within."

The Go To Market strategy involves a shift of perspective, from targeting 'Sales Force Productivity' to 'Sales Productivity'. The former is limited to the F2F channel, the latter includes also the productivity of other direct channels – Telebusiness and Ecommerce. Sales Productivity treats the productivity of F2F salespeople as but one element in the productivity of sales operations as a whole.

[5, 36, 1999] "...its not just a restructure your salesforce, which we've done historically in terms of, instead of having five regions now lets have six, and we'll chop them up and just re-point everything – which is historically what we've done – we've re-shaped. Whereas I think things like this Go To Market thing now, and where we are now on the cusp of, is not only re-shaping it's a re-mould. It might even be that it's the constituent parts you need to change rather than just which order they come."

The 'constituent parts' of the direct sales force now include Telebusiness, Ebusiness and F2F channels. Xerox's approach to increasing direct sales productivity is now focussed on the integration of these three channels.

4.3.2 F2F Productivity and Optimal Channel Mix

As is now clear, the aims of the Go To Market strategy are to deliver increased revenue and a lower cost of sale though the effective use of existing and new channels. The Go To Market strategy is:

[7, 10, 1999] "...about market opportunity, and it's all interrelated into sales force productivity, because the ultimate aim of this is to increase sales force productivity and a better expense to revenue ratio – more profit, quite simply."

One of the three major themes of Go To Market is the implementation of an Optimal Channel Mix. The approach to achieving Optimal Channel Mix is understood to consist of two related strands:

> ❶ *To be present in the customer's channel of choice – to sell the way the customer wants to buy, and,*
>
> ❷ *To match value of a transaction to the cost of channel employed – to achieve appropriate channel economics.*

The first strand is summarised as follows:

[15, 81, 1999] "...the importance is two fold. And you've probably got the two strands, I mean they connect. The first strand is to, you've got to allow the customers to buy the way they want. We can't be a channel bigot, we can't say to them, if you want to buy off Xerox you've got to see a salesperson. So we've got to sell the way the customer wants to buy."

The research summarised in Chapter 3 showed that Xerox's presence in non-F2F channels was inadequate. Xerox understand that the development of new channels of Customer Engagement is essential. The second strand of the approach to channel optimisation is the cost effective management of the transactions completed through each channel:

[15, 81, 41, 1999] "...then we've got the other point... which is matching the channel economics, you've got to try as much as possible to get appropriate channel economics. In other words, if you're selling a $2000 device you sell it through this method, if it's a $100 dollar device you'd rather the person ran away because you can't, you know if it costs you more than $5 to take the order you aren't making a profit"

"I mean... customers are wonderful people, you've got to give them all the choice in the world. However, it's like the banks, if it costs you ten times more to have somebody walk into a teller than use an ATM, you try and push them onto the ATM, and you've got to give them some incentive to go on to the ATM... And you've got to match, it's no point saying 'well, OK Mr Customer – I don't mind if you want to buy a £1000 printer from a salesman'. You do mind, you do mind, you mind a lot because for a salesman to go an pick up an order for £1000 costs you £300 to £400. So the channel, you may only be making £200 profit out of that deal, so you can't afford a salesman to go."

The role of the Selling Process in achieving an Optimal Channel Mix – the correct channels effectively used – is critical. It is used to structure thought about the role of individual channels in the overall channel mix, and the cost effective targeting of each channel.

The thought process underlying the re-structuring of channel usage is described below.

[3, 22-24, 1999] "I mean in some respects our history is Face to Face - a lot of the people we've been positioned in organisations with are used to Face to Face. It appeals to traditional procurement methods, dealing with a purchasing or an office manager. Face to Face is more important if the solution is more complex, and all embracing, its more enterprise wide, it's a break through for an organisations, so culturally the current generation of people are used to Face to Face negotiation, and what you have to do is think about all the steps in an engagement process... What we're trying to do is decide, by market, by segment, what the most opportune, financially productive and customer oriented way to reach the decision point in each stage. If there's ten stages of the selling cycle - it is expensive to have awareness being pumped from a Face to Face [salesperson] and whose productivity is three calls a day - trying to get into that. So, getting inside the market, the segmentation, the expectation, the requirements and then within the selling process understand, and the buying process... we have to think about bespoking the customer buying process... So what we're going to do, is to better understand buyer behaviour, to better understand where one gets each of these steps fulfilled, to better understand how you use the various enabling channels, whether is be advertising and promotion or pull, erm, Extranet , Intranet, Internet - where, whatever it is, to really get into, to get into the right, the appropriate mix."

All stages in the Selling Process have historically been performed by the F2F channel. Xerox recognise that this is neither 'customer oriented' nor 'financially productive'. The research summarised in Chapter 3, on which the Go To Market strategy is premised, showed that: customers buy through many channels aside from F2F, that digital products are often bought through different channels to analogue products, and that customers will frequently use more than one channel to satisfy their requirements. In short, the research showed that in order to succeed in the IT market, Xerox needs to be in different channels [18, p11, 1999]. Exclusive reliance on the F2F channel meant that Xerox simply could not reach the voluminous market opportunity that the research had identified:

[7, 23 & 15, 1999] "...what it really told us was that, we were not faced off adequately to exploit the opportunity that was there. So we had too many Face to Face, not enough channels – too much of this, not enough of that, and the cost of that [exclusive F2F] was prohibitive. So the main messages from the research [were]... basically – understand your market better and create a coverage map

that exploits it.... What we need is, our greater reach to market, broadening the base we have at the moment. We can't do it through Face to Face selling, just through capacity we can not reach the amount of opportunity that there is."

The pre- Go To Market channel mix was neither optimum nor customer oriented. Xerox were not selling the way the customers wanted to buy, and reliance on the F2F channel for performance of all stages of the Selling Process was not 'financially productive'. This is reflected in the selling Expense to Revenue (E:R) ratio. In 1997 Xerox's E:R was 18.1%. It is projected to fall to 11.5% in 2001 [7, p25, 1999]. Achieving this result requires the use of alternative channels to market (direct and indirect), and a refocusing of the F2F sales force at high value solutions, rather than low margin commodity products. The logic of refocusing the F2F effort at high value solutions is straight forward:

[5, 93, 1999] "We are striving, it's all part of the changes we're going through, we are striving to change the cost base. It's, I think people are at two extremes – it's not, people have looked at it and said 'they're an expensive sales force'. There's nothing wrong with them being a little expensive, because they bring in high end profit, they bring in new business. It's horses for courses. And that's the whole concept of why we're changing with this Go To Market. We've used the same model – whether you're a small one man band, or whether you're a multinational, we've used the same coverage model, historically. So they make great money up there [high value products], but down here [commodities etc] you're making a loss. And overall you're getting fairly reasonable money."

An important element of Xerox's use of alternative direct channels, and improved coverage of market opportunity, is the discipline of 'Task Substitution'. The Task Substitution concept is central to Xerox's overall drive to increase Sales Productivity, and the Selling Process is central to the concept of Task Substitution. The theory and practice of Task Substitution is the subject of the following section.

4.3.3 F2F Productivity and Task Substitution

Xerox are attempting to increase overall sales productivity through a process of 'Task Substitution'. The process of Task Substitution involves allocating costs to each of the stages in the Selling Process, and then performing each stage through the most cost effective, productive channel. Task Substitution is an integral element of Xerox's attempts to achieve Optimal Channel Mix, and to implement Intelligent Coverage. The process is described in the following:

[15, 32, 1999] "Let's look at what the sales man does. Now if we understand what they're doing in the ten steps, you can then go in and allocate a cost of doing it with the Face to Face, and you can say - which of those bits of the process can I substitute onto the telephone or the Web. Because it'll be cheaper. Simple example, how much time does a salesman spend finding suspects, or converting suspects into prospect - and say it's 40% of their time. You say 'wait a minute, I could do Telemarketing and I could generate you prospects a lot cheaper than your process says you're doing'. So let's do that as a Task Substitution, let's say 'Mr Salesperson, instead of the ten steps, let's take steps 1 to 3 and put it on the telephone, or on the Web'. Now you can go even further, you can go and say let's look at the steps four and five, what's steps four and five, steps four and five is 'understanding the customer's requirements' and 'formulating a specification', and you can say, well wait a minute, for certain case, let's say the customer is buying their fifth machine, of the same ones - why would you need a salesperson? They know what they want, they want another one just like the four they've already bought. I can move that onto the telephone. By the way, I could probably move it onto Web, which is even cheaper - cost per transaction. Let's say the customer is upgrading an old machine, now what we could deal with that, we could formulate a package that says they've got a machine that's 5, 6 years old we could formulate a standard replacement package - that could go on the Telephone or the Web. So what we're trying to do with, in terms of sales productivity now, is to look at the ten steps - look at the customer segments, and look at the product segments and say, which of these could be substituted, because a sales man cost you what - $500 - to make a visit, to drive out to a customer, spend 30 minutes talking to them, cost anywhere between $300 and $500. That's a lot of money. A five minute phone call costs $10. The customer going on the Web costs a dollar... So the real secret here, not only is it cheaper for us, but it's actually more convenient for the customer."

Task Substitution is necessary given the limited coverage capacity of the F2F sales force. An industry specific example demonstrating the necessity of improved coverage capacity is as follows:

[4, 9, 1999] "...in the Public Sector there's 90,000 establishments. And in those 90,000 establishments there could be any number of potential customers – various departments etc. So how, how can you in Public Sector, with 90,000 establishments, find a way of filtering that down to become those customers that you are most likely to do business with. Now, if I were to say 'OK 90,000 establishments, we've got 150 salespeople' – you know so they're going to have 6,000 establishments each. Not a hope in hell. There's no way they could even touch that many. Most people argue in the organisation that anything over 100 establishments is more than sufficient for having in your portfolio, depending on the size of the organisation."

It is clear that other modes of coverage are necessary. New modes of coverage are necessary due to the limitations of the F2F model, and because in many cases customers wish to be contacted (or make contact with Xerox) via alternative channels:

[2, 50, 1999] "How it is now, is that, we have a model which says – we have Face to Face coverage and we have Telebusiness coverage. And you do that because a Telebusiness person can cover significantly more calls, more contacts with the customer than a Face to Face person can... we do that because you can't, you can't cover the buying decisions in the way the customer wants them to be covered. They don't want to necessarily see a salesperson all the time."

Sales productivity through Task Substitution represents is a major element of the Go To Market strategy. It involves the integration of the F2F, Telebusiness and Ebusiness channels. For each customer and product segment, the decision is being made as to which channel (F2F, Telebusiness, Ebusiness) represents the most cost effective and customer focused method of performing each stage in the Selling Process. The increasing use of Telebusiness and Ebusiness are directly related to the practise of Task Substitution. Chapter 5 describes the role of the Tele- and Ebusiness channels in achieving Optimal Channel Mix, Intelligent Coverage and overall Sales Productivity. Task Substitution leads logically to a 'Hybrid Selling' model of Customer Engagement. Hybrid Selling is described in the following section.

4.3.4 F2F and Hybrid Selling

The process of Task Substitution is 'operationalised' through the practice of Hybrid Selling. Hybrid Selling represents the integration of the F2F, Tele- and Ebusiness channels for the efficient and effective performance of the Selling Process stages. This research has identified three forms of Hybrid Selling: the Telemarketing Hybrid, Partnering Hybrid and the Fulfilment Hybrid.

4.3.4.1 Telemarketing Hybrid Selling

In the Telemarketing Hybrid Selling model the first three stages of the Selling Process (Identifying Prospects, Make Initial Call, Qualify Customer Interest) are performed by the Telebusiness channel. The sales opportunity is then passed to a F2F salesperson to progress.

[4, 6-9, 1999] "...Now given that Xerox have invested an awful lot of money on front end which is the raising of the initial suspects to prospects through both marketing and Telebusiness, then clearly when a salesman, hopefully what that will do is provide for the salesman an intro so that he's not wasting his valuable time in raising prospects...what will actually happen is the TBC [Telebusiness

Centre] would raise the suspects, they would get it along stages 1 to 3 of the Selling Process at least, so when the salesman goes and makes his call, he knows the customer, he's talking about, talking to, should be aware of why he is there. In fact he's there to do business of some shape or form, and then its up to the complexity of the negotiation as to how quickly you move along those steps."

In this case steps 1 to 3 (and where possible more) of the Selling Process are Task Substituted from F2F to the Telebusiness channel. TeleMarketing, and its relationship with other forms of Telebusiness are described further in Chapter 5.

4.3.4.2 Partnering Hybrid Model

In this case both Telebusiness and F2F resources work on a single account simultaneously. The customer may require a mix of low value commodity products and specialist services. The low value transactions are managed via the TBC (through TeleCoverage – see Chapter 5), the high value services are delivered via the F2F resource.

[2, 77, 1999] "What it would be, that would be the whole account, and there may well be a print room there, and you would have Face to Face, Face to Face would be done in that print room. And then all of the other accounts within, within there would be covered by the Telebusiness Centre – with the exclusion of that little pocket of area which needed Face to Face experience or expertise."

Here the entire Selling Process for lower value products is substituted from the F2F to the Telebusiness channel.

4.3.4.3 Fulfilment Hybrid Model

In this type of hybrid sale the F2F effort is directed at negotiating a framework agreement with a customer. This framework agreement is then fulfilled via alternative channels – by Telebusiness (TeleCoverage) or Ebusiness (further details are contained in Chapter 5) .

[11, 9, 1999] "You have, where we have been most successful to date which is, we sign a framed contract with somebody – probably a good example is currently the Inland Revenue – we had a huge framed contract. Now, on day one when we signed the framed contract, that's fine, we've got no business out of it. You now have to go and get the business. You probably sell at a very low margin, which means you need to do the business very efficiently, and therefore you put

somebody on the phone to cover that account nationally, and they are responsible for getting the business according to the framed contract."

With the Fulfilment Hybrid Model the first seven stages of the Selling Process are performed by F2F people for an initial framework contract (to 'Negotiate to Close Order') – and then multiple runs of the Selling Process are performed through Telebusiness or Ebusiness. These multiple runs are initiated by either Xerox or the customer with whom a framework contract has been signed previously.

The use of Hybrid Selling models enables Xerox to achieve two strategic aims: first it enables the re-focussing of F2F activity towards higher value document management solution sales, and actual 'selling'. It enables F2F salespeople to focus on high value sales because low value sales are directed through the Telebusiness Centre. It enables F2F salespeople to spend more of their time 'selling' as the essential prospecting and qualifying elements of the Selling Process are completed by the Telebusiness Centre. Second it facilitates the strategic aim of decreasing the overall cost of selling (E:R) by increasing the volume of transactions completed through lower cost channels. The Telemarketing Hybrid Model's implications for the work of salespeople is as follows:

[7, 33, 1999] "...it's the disaggregation of the selling cycle so that if you were a salesperson and I were a salesperson – OK let's start, I would ring, I would do prospecting, I would do a visit, I would then do a demonstration (is this the prospect to order seven?) yes, it's the selling cycle. So Task Substitution, the disaggregation, so that you would have your skilled salesperson, your closer, working at the top end of this [the Selling Process] so that they would come in at a different stage rather than going through the whole selling cycle. Not only that, it's Task Substitution of the support activity as well... you know, administrative duties that take your expensive highly trained salesperson away from selling. You know if you looked at a pie chart of what they do they would say, although they'd overestimate it no doubt, but 50% of their time is spent doing crap which isn't anything to do with selling."

The Selling Process is a requirement for effective Hybrid Selling. It provides the structure to which both F2F and Telebusiness people work. The co-ordination of activities is facilitated by the common Selling Process structure.

[2, 50, 1999] "...you can't do these types of models [hybrids]. You have to be very discreet in terms of your coverage. You either say that the whole account is Telebusiness, or the whole account is Face to Face, but you can't mix and match without the (process)... no, because they just don't know what's going on and

you'll have so many situations where, you know, one person will phone up, and they'll be from the Telebusiness centre, and the next day a guy walks in and they say, 'Oh, I spoke to someone else from Xerox yesterday'.

And...

[8, 265, 1999] "...the whole aim of this, the selling game is all about increasing productivity and covering your business opportunity more intelligently. So being in front of the right people with the right things at the right time – and getting the coverage. If you haven't got the processes to enable you to deploy salesforce, and telesales to cover that, it wouldn't work would it."

It is clear that Xerox wish to make increasing use of lower cost channels to cover buying decisions in the market. Many participants suggested that resistance to change is often strong, and that the culture of F2F salespeople represents a significant barrier to change. The following quotations provide a flavour of the problems facing Xerox associated with the implementation of the Go To Market strategy.

[7, 53-59, 1999] "...it's complicated. Now really if you're running a territory now, I mean you had a good year last year, and I say 'well fine, but what we're going to do as an organisation is we're going to take two hundred establishments off you and leave you with a hundred, and those extra ones that you had last year, we're going to put those into the Telebusiness centre'. And they're going to take your customers. You know, well they'll go 'ooh I know Mrs Jones or Mr Filpot and they wouldn't want that', they - and there's resistance. There's a lot of resistance at the moment, a lot of - and as we go through, if we go through a couple of bad months in terms of business performance you've got to hold your nerve to follow the strategy through. Otherwise you're going, it's going to start to unravel. If you allow it to be unravelled it will, you know, it will falter - which is as a corporation we can't afford to let happen."

"So Task Substitution is an element of it... We are trying to get to grips with a lot of that ourselves - how, to who, what it means and how we - because we're moving from a culture which has been predominantly Face to Face salesperson, lets cut territories and we'll give people accounts and they are there, and they'll look after them and they'll earn their living off servicing them - to cross the bridge and say, I'm going to, or we as an organisation are going to substitute most of those tasks, is quite a brave thing to do, and a very difficult thing to do. But the boundaries between what is and what isn't or what can and what can't be substituted have yet to be drawn very clearly, and it's a thing we're wrestling with now. Tomorrow for example we've got quite a heavy meeting with our Public Sector managers about exactly how they're going to use Teleselling to support Public Sector. What happens is, well we've got 90,000 establishments in the UK which are Public Sector, which we've identified as Public Sector. It was agreed with the top model that we can't cover all of those establishments with Face to Face salesmen, so we should concentrate our sales people on you know, the top 20,000 establishments - that would give them about two hundred establishments

each. So that decision was made, and when we came to Ground Plan, i.e. allocate all the establishments to salespeople, the Business Managers in each of the regions and a lot of the salespeople were saying 'you can't do that, you've taken away our livelihood' and 'where are these going to come, you can't have people ringing up these customers' - and all hell broke loose. So now we're into damage limitation. Partly because it was too big a pill to swallow, partly because there was misinformation or lack of communication to the people who needed that most. Which is the, we want to motivate - this is the dilemma, we want to motivate the salespeople to be selling and earning as much as they can, and this is difficult thing to do. And at the same time the business as a whole wants to move itself from here to here - we need to keep the business, whilst we change the strategy, keep the business rolling at the same time - and for that you need good Business Managers good Sales Managers. Because Xerox, like any other company, can't afford to shut the shop up for a year, two years whilst it does this - it has to keep the business rolling, the shareholders need to be satisfied, other stakeholders need to be, you know, looked after. And so, its a difficult trick to pull."

It is recognised that F2F people have performed well in the past, and that gaining 'buy-in' for the changes in work practices implied by Go To Market will prove difficult:

[7, 96, 1999] "...but when you come, when you've built your reputation and success on high levels of sales, and you rely on a certain type of individual to sell for you, it's difficult to change that, that head set, that pressure to perform. You'll get this when you speak to other salespeople – they're beaten up for selling, they're beaten up to sell more and more and more, to more people, more often. They get paid well, but there's a lot of pressure. So we're talking, this is a, we're in a Head Office environment – this is a presentation to a Senior Executive. Salesman or saleswoman's going to say 'that's bollocks – it's down to having a good salesperson who works his nuts off, gets on well with customers and knows how to close. That's what salesforce productivity is about... give me my customers and my accounts and I'll sell to them. Pay me well for it and I'll do it'."

The cultural element of change was important to many participants, and was discussed frequently during this research. The required changes to sales culture are described further in Section 4.5 below.

Although Xerox recognise that resistance on the part of F2F people exists, the direction remains to perform as many steps of the Selling Process as possible through the Telebusiness or Ebusiness channels.

[15, 45, 1999] "Well there's a great argument from the sales force that whatever product you look at they say 'Oh you couldn't sell one of these over the telephone'. Bear in mind I'm now breaking down the steps of the sale, I'm saying, 'what do you mean by 'sold over the telephone', do you mean all the way? Clearly not' - you need a dem you know, quite a lot of products will need a demonstration, its not easy to do a demonstration over the phone. However, over the Web you

can do a, you can do a video dem. I can do for very high, I can do steps 1 to 3, possibly even 4 and 5 over the phone for any, for a corporate jet. You don't need to do that sort of looking for customers and understanding where the, who the customer is and then doing their needs analysis etc - you could do that over the phone. Could I take the order for a corporate jet over the phone? Probably not. But I certainly, I certainly could take away from the salesforce steps 1 to 5, so again you've got to look at it and say 'let's look at the 10 steps, what are we talking about here', even right the way through to the end, we sell probably the big - I used to sell Docutechs, $250,000 a go - I would argue with you that a customer that's already got six and wants to buy the seventh, I can do that over the phone, they know exactly what they want (just a straight re-buy) just a re-buy. They know what they want, they might want to negotiate, they might even have an agreed price. So why would, why would you need a salesman to pick up their re-buy. Even for something that's a quarter of a million dollars. They know what they want."

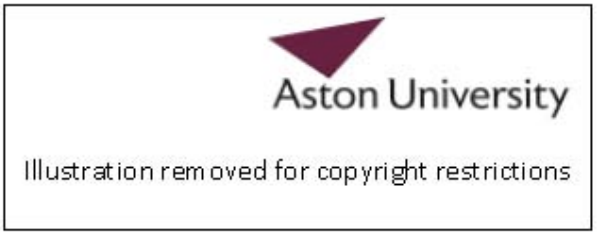
Optimal Channel Mix, and its constituent elements – Task Substitution and Hybrid Selling – is made possible by effective Market Understanding, and is enabled by the common Selling Process structure. The increasing reliance on the Telebusiness channel, the re-focussing of F2F resources, and the use of Hybrid Selling means that Xerox are beginning to cover the market in new ways. The overall market coverage map is changing.

4.4 A New Coverage Map

Integration of the F2F, Telebusiness and Ebusiness channels is undertaken with the aim of increasing overall coverage of the identified market opportunity (broadening market reach), and doing so through an effective and efficient channel mix. Go To Market aims to change the balance of channels employed - by product type and by industry sector - in Xerox's total Customer Engagement plan. The coverage map of 1997 and the anticipated coverage map for 2001 are shown in the Diagrams 4.3 and 4.4 on the following page. It is evident from these diagrams, and from the descriptions of Task Substitution and Hybrid Selling above, that the role of the F2F channel, and the role of F2F salespeople are undergoing considerable change. These changes in the role of F2F salespeople, resulting from the implementation of the Go To Market strategy, are described further in the next section.

Diagram 4.3 – *Xerox Coverage Map 1997 [7, p17, 1999]*

Diagram 4.4 – *Xerox Coverage Map 2001 [7, p18, 1999]*



4.5 The Changing Role of F2F Salespeople

Xerox's increasing reliance on indirect (Dealers, Concessionaires, Retailers etc) and new direct (Telebusiness, Ebusiness) channels was summarised in Chapter 3, and was described further above. It is clear that the role of the F2F salesperson is changing within Xerox's overall market coverage strategy. Table 3.3 showed that in 1997 the F2F channel was responsible for 87% of Xerox's total revenue, but that the target figure for 2001 is 53%. The diagram also showed that the revenue attributable to the F2F channel in 1997 was $347m, and that this figure was projected to reach $468m in 2001. The Go To Market strategy aims to deliver these results through a re-focussing of the F2F effort, and an increase in holistic sales productivity.

Go To Market includes the Sectorisation of the F2F salesforce (which occurred on 1st January 1999). F2F salespeople are now individually aligned to one of four strategic sectors: Commercial, Public Sector, Graphic Arts (which together comprise Industry Solutions Operations – ISO) and General Markets (General Markets Operations – GMO). The difference between the two organisations is introduced in the following:

[11,32, 1999] "Xerox has recently launched ISO and GMO. The company's going to split into these two groups. ISO is Industry Solutions Organisation and GMO is General Markets Organisation. And the intention is that ISO will focus on application, high value selling. Where you add value, you get a higher profit margin and higher value to the sales because you are adding benefits to that company – so that you're application selling, you're solution selling to that customer. GMO, the general markets operation is very much really about, you know, box shifting. You get it, you get your products to market at the cheapest, the most efficient way you can. That's where this will probably fit in, that we will fit in through Telesales, into GMO."

Chapter 3 suggested the reason that F2F sales operations are sector-aligned is to 'form a clearer line of sight to the customer'. This is indeed the case, but it is worth explaining why this clear line of sight is necessary. Xerox salespeople are sector-aligned because Xerox is intent on becoming a 'Document Management Solutions Company':

[15, 60, 1999] "...there's a commodity level, but they all buy in the same way – the reason we're going into industries is that if you're going to sell solutions, and software support, you need to understand how their work gets done. So when you're selling to an insurance company, if, if you're buying, if you're buying a copier – a copier is a copier is a copier. The next level up is application level. And

applications can be across industry, I mean you know, producing payroll and things like that is the same in every company. When you really want to get into Document Management Solutions, which is what we want the salesmen to do, you then need to understand the customer's processes, you then need to be as much an expert in the customer's problems and processes as you are in our product. Therefore you need to, we work in Insurance, Banking, Manufacturing, Public Sector. So it's not because they buy differently. They may well buy differently, but that's not the main reason, it's more to understand their business problems."

And this...

[8, 115, 1999] "...all links in with the way technology is changing and Xerox is changing with the products we sell. More solutions, less tin, we've got to move people from selling stand alone photocopiers to fully digital network products... so in two or three years or four years time we will be a different company."

Xerox are moving to a position in which two models of Customer Engagement exist in parallel. The ISO Customer Engagement model is quite different to that of GMO. The ISO market place consists of large organisations (Commercial sector = Top 200 commercial enterprises, Public Sector = top 150 public sector organisations [7, p13, 1999]), whereas GMO will eventually...

[1, 171, 1999] "...be in the top 20 to 30 or maybe 40% of those accounts left, for Face to Face coverage. And all the rest will have either gone to Telesales or to concessions. And that's recognised, that's where we're going."

Judgements about the 'size' of an organisation are based on...

[1, 175, 1999] "...the number of machines they have, the number of employees an organisation has, which gives erm – oh, and also we've bought in data from consultant who worked out for each one things like document volumes from customers based on their size. So its based on those three factors..."

Xerox are approaching the market opportunity in each organisation (ISO & GMO) in different ways. The trend is to push F2F resources towards ISO Document Management Solutions selling, and to cover the buying decisions in the General Market through lower cost channels – either directly through Telebusiness, or indirectly through retailers, concessionaires, VARs etc. The direction for smaller, GMO opportunities is described in the following quotations.:

[15, 96, 1999] "If you're selling a commodity they don't want to be sold, you know, they just won't, they want to make it easy – as long as it's reasonable price and they're confident it's a reasonable customer. Which is why you're sort of seeing us

split the company into the ISO and GMO. I mean the basic product is a completely different business model. You don't want to spend time buying something that's a commodity. If you're buying one of these [the tape recorder] you don't want to (spend an hour speaking to a) salesman, well five salesmen if you're dealing with five companies. You want to say 'who do I deal with, I deal with BT' right, ring them up, say this is what I want, I want la la la – they say 'well the product you need is...' – you say 'good, right, send me one'. Or you go through the Web, you go up there and it's all there. If you really want to go through an information gathering phase before you buy, you don't want a sales person to do that, you want to do that at your own pace. See in the new world we're moving to the customer is taking control, this is the big... probably the biggest trend that's happening in the market today is that through telephone and Web the customer is getting control. You no longer sell, they buy. They're getting much closer to perfect information, through the Web. And they are, they are buying."

This trend, towards customer control and improved competitive information reveals another reason for moving the business towards solution, rather than 'box' sales:

[15, 104, 1999] "yeah, it's very hard to sell value on that basis, very hard to sell value, which is why you've got to separate the two, you've got to have one model for people who, if you're just dealing in a commoditised area, which is as I say up to £100,000 [tape turn over]... every company you talk to is trying to move into the value added solutions – how can I help you use my product, software options – you don't make, you won't make money out of, you know, with this – you'll make money but you've got to sell volume at a (and you've got to sell it through a cheap channel) yes. Absolutely. And we recognise that, its no problem, we've recognised it, which is you know, we're in the process of making the changes."

For smaller deals the aim is to enable the customer to buy Xerox products, but through channels less expensive (more cost-effective) to Xerox. These channels may be direct through Telebusiness, or indirect:

[15, 36, 1999] "So in a General Markets sense, if a customer wants to go into a retail store you need to be in a retail store, if they want to go to a dealer... if they want to see a salesman you should make a salesman available to them, but you've got to get the economics right, you know it costs you a lot of money to sell through a direct sales force."

F2F resources are being targeted at the sale of high value document management solutions, within ISO. The ISO Model compares to the GMO model as follows:

[3, 52, 1999] "So there's that [GMO Model] versus 'lets be all over Nat West Bank' and anything they want that prints documents, you know that's partnering... People talked to you about Whales and Salmon, and the analogy we have? (no,

no). We've basically said we've always had a generic model, what we're now trying to do is say - two types of campaign, Wale Hunting. If you're a whale hunter you need to have made big investments, you qualify your campaign, you get the right team together, you get the right ship to go out, you've got the right climate, the right time of day - it's a real Gantt chart project plan, to the nth degree - big capacity. If you don't get it right and the Japanese get the whale you're dead. You've wasted loads of money... So, you go from that to Salmon Fishing or Salmon Farming now – it's just a process. The solicitor you just have to, you know he's in the market once every 3, 4 years, and we just have to be in arms, the Coca Cola theory, within an arms reach of desire, so you know you just have to be there in the most appropriate channel. "

Xerox are:

[5, 88, 1999] "...very much trying to go down this route – on the basis that they sign the contract, so they'll be a different model [from GMO] – with big organisations. They put a big tender out for a County Council, they sign it but all they sign is a framework. The coverage starts once they've got that signed. And how is the best way then for the customers to buy it – through Telesales, TeleCoverage, Extranet, Face to Face? – that's the decision they have to make. Within Commercial it's similar in terms of big organisations, where your direct people are talking board to board, strategic five year plan – right you've signed the contract, now lets fulfil it, how do we fulfil it?"

The Task Substitution and Hybrid Selling elements of Optimal Channel Mix described above are designed with ISO in mind, rather than GMO. The Fulfilment Hybrid Model is clearly only applicable where F2F salespeople have negotiated a framed contract with large organisations:

[5, 88, 1999] "General Markets... there are still some big organisations out there, don't get me wrong, but as you go down the bottom end into one man bands and the little bits and pieces, that person is the person you need to have the strategic conversation with. So can you do that? It's not, it's not sign a contract and then get it fulfilled. The person you sign the contract with is the person you fulfil it with is you know, does the whole thing. So you need a different model for that, and it makes it harder to use these [Hybrid Selling models] because it's no longer a fulfilment role. If it's only a one machine deal and you lift it out of the back of your car when you sign the paperwork kind of thing. So they support, that certainly supports the bigger framework."

To recap, the aims of Task Substitution and Hybrid Selling are to improve the productivity of the F2F salesforce, and to lower the E:R ratio:

[15, 36, 1999] "...there's the Task Substitution on the big accounts... what you're doing, you're actually doing – the big accounts where we deal with the salespeople, we're saying what tasks are more efficiently done on the phone, and you've got to try and incent the customer to use that because it's a lot cheaper for us if the customer phones, and by the way it's a lot more convenient for him...

We're now looking at the accounts that are dealt with by the salespeople and we're trying to make the salespeople more productive by taking away from them tasks that could be more efficiently done in a different way. Thereby freeing up more time for them to sell solutions..."

The requirement to sell more solutions and less commodity products, and for close partnership with the Telebusiness channel, has significant implications for the role of F2F salespeople within Xerox's overall Customer Engagement activity. Each of the Go To Market elements – Optimal Channel Mix, Sectorisation of the Salesforce and the Intelligent Coverage philosophy – lead to changes in the way salespeople are expected to work. The necessity of change represents considerable challenges to Xerox. The F2F salesperson's role...

[16, 85, 1999] "...will change dramatically. And that's one of Xerox's biggest issues right now, because what, what a Xerox salesperson will be doing, hopefully 2 years from now, but probably more like 5, will be talking to CEOs at Board level, Directors, IT people – a level across the organisation, talking about how we reduce their document time, how we make the more productive with documents, how we can make the whole company more productive, save them money, save them space – where a Xerox person now is talking about a, you need a 25 minute speed copier now, in this department. This is a purchasing person. So you're going from a, very much a box rep, to an Account Management – I'm looking at your company, I understand your business, I understand your industry – where now we've got people who sell across all industries[and] don't care about what the industry's trends are doing. A real, a real good Xerox salesperson in 5 years time will know the Finance industry, and what's driving the Finance industry so that when they go to talk to this Director they can talk about what affects that Director, and how we bring something about that will solve a problem."

The specific changes to the work of salespeople that were described by participants to this research are as follows.

4.5.1 A Different Kind of Selling

It is evident that Xerox are changing, through Go To Market, in order to compete successfully in the digital marketplace. However, many F2F salespeople are naturally more familiar with the job of selling into the copier marketplace. Market research suggested to Xerox that the people responsible within an organisation for purchasing IT equipment are different from the 'kind' of people Xerox salespeople are used to dealing with. The blurring of the boundaries between Office and IT equipment means also that the salesperson may have to manage more than one customer relationship. In short, salespeople are now required to

deal more with IT Management customers, as well as with 'traditional' Office Management. The 'style' of selling required is changing...

[1, 131,135 & 139, 1999] "...purely because of the technology change that we're going through. Not internally, but to our customers. The role of sales is becoming more of a consultant for Xerox, and I'm sure that you know there already are selling organisations out there which are consultant based. We've always been very much a sales sales environment, and now what's happening is that as we're crossing over into an IT sale, you can't just go and sell - you have to go to consult, advise them on how they should run their IT, what the benefits are. Get involved in more project management as opposed to just selling a copier."

"And it's probably one of our biggest challenges. I'd say it's that, it's quite lucky when you have young people I suppose, because they're not old Xerox, who always sold in a certain way... they're happy to get far more involved with customers who are looking to print, and document projects really. So we look at their documents strategy because the merging of technology, and that's IT led rather than Facilities led, so they're having to manage two relationships, manage projects, work with customers..."

The reasons underlying the need for this new style of selling are encapsulated in the following. It appears that the appropriate selling style in an industry is cyclical. That is, it appears that appropriate selling styles vary with the lifecycle of the products or service sold.

[10, 25, 1999] "...you find that erm, the world changes. They have a set of assumptions about how they behave, and the market changes. Like in Xerox's case there's a huge convergence of IT and copying - and all the digital stuff. And what they find is the traditional way they've sold doesn't work any more. So for example when photocopiers first came out nobody knew what they were, and the way they sold was to go into an estate agent and say 'look at this', and they'd show a picture of an estate agent down the road and it's the description of a house and a photograph of the house - and he'd say 'bloody hell that's fantastic, I want one of those'. And so what they were doing was they were selling by a process of replicating and shocking them about what their competition was doing. And so 'I'll lose business unless I can keep up with this'. And eventually everyone knew what these were and they became a commoditised product. And because it was commoditised all of this need creation skill evaporated, and it became very much, it all really focused down onto the financial deals with people. So that little area there of, you know, we'll buy your old machines and give you a deal with penalties, and getting very very good at doing the financial deal. But it was just churning it, replacing one with another. And then the market changed suddenly, and they suddenly discover that they've got to sell to IT departments instead of Facilities departments. They're selling applications again instead of just doing a commercial deal. And they say 'aargghhh we've forgotten how to do that', culturally forgotten how to do it..."

Xerox salespeople will again be required to sell business benefits through applications and solutions, rather than 'boxes' and financial deals.

4.5.2 From 'Box Shifters' to 'Territory MDs'

The re-direction of effort towards complex solution sales has led to changes in the necessary skills of F2F salespeople. Salespeople will be required to manage many relationships in the co-ordination of solution delivery. There will be much more 'management' in the F2F role, as well as the new kind of selling.

[3, 76, 1999] "OK, if you think about what we're selling now, for me the most powerful thing is our brand 'The Document Company' – it's to be the enterprise wide document partner. Within Whale Hunting, the sector industry [ISO] approach - we have to re-mix what our Face to Face or what our coverage is... We historically have been very hygiene based sales management - you know, we really look after our salespeople, we care like crazy. You're only there to sell, we'll look after everything for you. We'll think about your diet, like you know, I mean, we've got to get people who are MDs of their own territory, stepping up to using technology, being business people not salespeople. And it's not, our approach isn't direct sales to a customer through purchasing, it's board to board, it's bespoke to campaigns, it's political mapping, it's getting the right resource, it's a blended team approach in the big accounts."

The role of the Xerox F2F salesperson seems destined to become far more challenging...

[17, 103, 1999] "Now what that therefore means from a [salesperson's] point of view is not only do they have to understand the product, they have to understand the political environment, yeah, in terms of the strategic issues that Local Authorities are facing or their customers are facing. They have to understand what does that mean to the customer's customer. And they have to understand, therefore, what does it mean from a business and management point of view - in terms of the problems that it generates. So all of a sudden he doesn't just have to worry about features, advantages and price. He's still got all of that, but you've got the environmental or sector knowledge, plus the customer knowledge, and by the way its also some more technical knowledge up there about networks - logging on the network and whatever. So in other words Xerox non-product knowledge. A lot more difficult. So you need a lot brighter individual. A lot, people who are intellectually more capable - both from an acquisition of knowledge, but then being able to utilise that knowledge with the customer to sell, and it's a different sell. It's a more technical sell, and it's a more elongated sell."

ISO F2F people will work to the more complex, long cycle, large deal oriented 'Whale Hunting' sales model, rather than the high frequency, quick cycle, smaller deal 'Salmon Farming' model. The F2F role will become more like that of a 'consultant' than 'salesperson'. It will involve complex negotiation at the highest level, the management of many different kinds of relationship, and the co-ordination of both Xerox and third party resources in the sale and implementation of tailored solutions.

[8, 242-244, 1999] "...we will become more, our salespeople will be more sales consultants I think. We will be going into accounts and rather than delivering that product or service, as is happening more and more, I mean if you take the Compaq example [an instance of Extranet based Hybrid Selling the participant and researcher were discussing – more details of this case are described in Chapter 6] I'm using different channels of the business to deliver the solution. Although we'll go in and advise, and get different channels in, there is no reason we'll be selling home working products. If that can be set up I don't need to know anything about that. We used, in that solution, with products we've divided them, we used different channels to fulfil different parts of that solution. We've put in our multi-function devices, we didn't put in our printers, we bought those from our third party. More and more as a direct sales force, Computacentre and different people to fulfil different parts of that, won't be just Xerox. So it's a consultant in the top accounts, its channels, its SoHo, retail, it's it's Telesales...."

These points were made many times by the research participants. It seems logical and evident that the role of F2F people will change...

"...drastically, yeah, its more relationship, its more having wider knowledge of skills - having a wider understanding of what is available to fulfil that solution, to be able to discuss that at that level, but not actually providing it - then you know, get someone else to fulfil that order, which will be a mixture of software and people and yeah, I see it as a more consultants role in the future."

The direct F2F person will become "a facilitator of the channels." [3, 61, 1999]. F2F people will no longer be order-takers, and in this way the perception of salespeople on the part of customers may change also:

[11, 24, 1999] "Absolutely, and also the benefit that that can have to us as a company and particularly our direct, our current outside salesforce is that, the outside sales force can then elevate themselves in the account. Because if we are having discussions customer and supplier. If you see me as an order taker and as an administrator your opinion of me will be lower than if you see me as an actual consultant. So you know, you want to place an order with me, it's probably a case of, 'well actually I don't take orders, I'm here to advise you on your account. But if you want to place an order please ring this telephone number and they will be happy to take your order for you'. That then gives me the opportunity to elevate my contact level and my status within the account."

As with the increasing reliance on alternate direct channels (Hybrid Selling etc – see Section 4.3.4), there is a view within Xerox that the culture of 'traditional' salespeople may represent a significant barrier to change:

[5, 36, 1999] "...some people have crossed the bridge, some people haven't – because when you've got a, we've got a traditional sales force that probably hasn't changed in the type of person it is for the last 30 years. Whilst the industry is changing, and again it's another thing that this Go To Market brings, that says you actually start to examine what cult... almost quite a cultural thing that says we have created a type of salesperson, that is a Xerox salesperson, and has done us proud during the years that they've been there. But with some of the changes we're going through now we literally have to stop and question that says – 'is this now the type of salesperson that we want?'. I think that these are some of the complex questions that we have to start asking ourselves..."

The changes in the requirements made of F2F people mean that there is a need to improve the skill sets of those people. The training of salespeople is addressed through a programme called Sales Force Excellence.

4.5.3 Sales Force Excellence

The Sales Force Excellence training programme was at an early stage of development at the time of this research. Participants were clear, though, as to what skills were required on the part of the F2F salesforce. The kinds of skills required are:

[3, 92, 1999] "...listening, understanding business, understanding - you need an instant MBA - you need to go into Barclays and say, you know, what's their vital few, what's their management model, what are the things that the shareholders are saying about them? With full environmental appraisal, and then saying, OK where's, what's the opportunity from Xerox strengths, weaknesses, SWOT - and then applying Xerox capabilities to the opportunities. And then doing, you know... understanding campaigns, qualifying well, choosing the right channels and winning, winning a high win rate. And also creating space, qualifying out, creating space and if it's wrong - build a channel to fulfil. So we're asking quite a lot."

There is an obvious requirement for in-depth industry specific knowledge. The following quote demonstrates the stage of training development Xerox were at during this research:

[16, 85, 1999] "...that's part of the issue. I'm going now, remember we only started January one [1999], so we're still developing some of the specific industry training. But 2 years from now, when somebody does come in and say 'I'm going to work in the Manufacturing Industry', there'll be specific industry training that will

teach them about how manufacturers work, trends in manufacturing, things you need to know, what, what manufacturing people care about, and where the document sits and where we play in that industry – but we're still developing within that."

The objective is for F2F people to:

[13, p4, 1999] "*Add value to customers' business through the understanding of industry focused processes, applications and solutions and by improved account management skills.*"

In the management of F2F people, Xerox intend to:

[13, p5, 1999] "*Link competency to career progression. Assess and accredit ability to apply skills and learning in the customer environment.*"

In practice this means:

[5, 93, 1999] "Sales Force Excellence is looking at the skills and how as a salesperson, where you fit. So therefore rather than saying 'you're that type of salesperson, I'll pay you on target, what forty grand a year' – instead I'll say 'what skills do you have? Right you have those sets of skills, if you use those sets – OK for those skills we're prepared to pay you sixty grand a year'. There's a colleague next to you whose doing the same sort of job, doesn't have those skills, we're only going to pay him fifty grand a year, or forty grand a year..."

Again, the changes being implemented as part of Go To Market represent a significant break with Xerox's past. F2F people are...

[17, 98, 1999] "...having to learn to re sell, as well as having to learn a much broader knowledge, there's a much broader knowledge set that they need. They'll become more of a consultant."

The approach to F2F productivity at Xerox is multi-faceted. It involves the redesign of how, where and by whom the Selling Process is performed. It involves both structural and cultural changes on a grand scale. The following quote demonstrates the complexity of the changes, being implemented within Xerox, that are described in this research:

[5, 93, 1999] "...so it's – it's so multifaceted all of this and all the changes. It's only when we're sitting and talking about it, and I'm realising it now, it's just how multifaceted the changes we are going through are. Because it's not just

structural, it's not just cultural - well it is structural, but it's not just how many people you've got and where you deploy them – it's how much you pay them, where you position them in the market, it's the cultural thing that says, tied into that it's the other people, so fundamentally we are improving the way they work - the Face to Face people. But by several means. By focus, by skills, by who they are, by culture, by structure - and its bound by technology, but the technology might not be a direct technology. Technology might be the technology that we use to plan these changes. It might not necessarily be the technology we give them to help them do their job, but that I do believe - lap tops still have a part to play in that. Its just how much, how far we take it."

The role of technology in the work of F2F people is described in Chapter 6. For now the description of the role of the Selling Process in the work of F2F people is continued. Specifically, the following section presents the research findings pertaining to the management and measurement of F2F salespeople. Again it is clear that Xerox's process orientation facilitates directly the effective management and measurement of F2F productivity.

4.6 Managing and Measuring F2F Operations

The Selling Process describes the constituent activity stages involved in the sale of a Xerox good or service. Changes to the way in which the stages of the Selling Process are performed – by whom, and where – are central to Xerox's approach to the improvement of both F2F and overall Sales Productivity. The Selling Process is necessary to the process of Task Substitution, and facilitates the effective use of Hybrid Selling.

The Selling Process is also central to the way in which F2F people are managed. Structuring sales activity through the Selling Process facilitates effective management of F2F salespeople. In some instances the Selling Process was referred to by participants as the 'Sales Management Process'. The process is used to structure debate about the performance of F2F people, and is the topic of discussion between F2F people and their managers in business review meetings:

[5, 6-8, 1999] "We probably don't measure it as good as we could, but in terms of each salesperson keeps an Outlook, and a prospect list and ongoing, and the deals on there and the steps they're at would perform process - formal inputs - to a one to one review, that that individual would have with their Business Manager every month. And therefore having the 10 steps gives you your topic for conversation in terms of if it was at step 6 last month - if it's still step 6 this month, nothing's happened. As part of the process, as part of the Outlook process. So then again it's this conversation, it's this management by fact in terms of the

business manager's review. Rather than 'I think you've done quite a nice job this month, and you seem to have been quite busy' (carry on) yeah, it's you're down to, 'you had 10 prospects last month, you've still only got 10 - but I see where you've moved them on'. And by identifying things early, it allows you to put in steps to rectify any problems. Or maximise any opportunities."

These discussions, structured around the stages of the Selling Process, provide important information about Xerox's pipeline of business, and financial 'Outlook'. It provides a common standard for the management of F2F sales activity, and the collection of sales activity information:

[4, 9, 1999] "...well at the end of the day, if you don't use the process then sales people – salespeople are wide and varied, wide and varied, and basically if you're going to sell the products and services that we have in the way that we want to sell them, and in a way that will give the company data and information on what it's pipeline of business is, it's likely conversion rate, then you need the step process to get you there."

And:

[1, 127, 1999] "absolutely yeah. And it is really useful from a, my, from a control management point of view, because I literally sat there this morning going through, and you know someone that's at the stage 3 who's saying they're going to get the business this month, well I'd question whether they really are. And it allows me to then manage them and review with them where they really are on their commitments. It gives the company a better idea on the Outlook for business."

Xerox's business Outlook is measured on a 30, 60 and 90 day timescale, and this measure is central to the management of the F2F salesforce:

[14, 112, 1999] "...it helps the sales managers, focuses the sales managers yeah. Because this, this organisation really lives by its, erm – you'll hear this curious word 'Outlook'. The Outlook's the plan. But because Xerox can't use a simple word like plan it calls it Outlook. They live by their Outlooks. If you say 'how much business are you going to do next month – they call it 'thirty sixty ninety'. 30, 60 and 90 days. How much are you going to do in the next 30, how much in the next 60, how much in the next 90."

The Selling Process again underpins the 30, 60, 90 day Outlook. The process management and F2F people go through is described below. The 30, 60, 90 Outlook is...

[9, 22, 1999] "...a tool that says within 30 days I know that these people are going to make a decision. Now along the stages of a sale that we define there, not 1 to 10 but 1 to 7 [of the Selling Process], within the 30, 60,90 day plus the salesman

will feed in a) if a name there is to prospect, i.e. we know that they're going to make the buying decision for equipment within those timescales. The salesman will then define where they're at in terms of the stage of the sale 1 to 7 (they will actually say 'I'm at this stage') yeah, and they will also define when the, the decision is expected from the customer. They will also define with a 'Yes' or a 'No' if they expect to get the order. So what that then becomes is an Outlooking tool, in terms of what business the salesman expects to get, both in terms of revenue, in terms of product type."

Individual F2F salespeople are measured against a number of 'Key Ratios'. These ratios measure the effectiveness of individual F2F people in the converting of one stage of the Selling Process into the next – e.g. the effectiveness with which the Prospecting stages of the Selling Process are converted into Orders. Benchmark ratios also exist for particular products:

[14, 125, 1999] "...there are ratios... for each sales person, and for each product group for each sales person... to say 'well this salesperson needs fourteen prospects to get an order, how many orders does he think he's going to get and how many prospects has he got? Because if he hasn't got fourteen prospects for every order, he isn't going to get them'. It's things like that, its looking forward and saying, what are the ratios - and they used to establish benchmark ratios for each product, and say how many does it normally take."

The Selling Process , 30, 60, 90 day Outlook and Key Ratios are all used in order to track the productivity of F2F salespeople. They are also interlinked. The following quotation describes how these management measures are used in practice, and how they integrate:

[17, 20-23, 1999] "...the salesman might have £200,000 worth of Prospects but might only be Outlooking £100,000 worth of business. Because a salesman invariably doesn't get the names that he Outlooks, in 30 days. Because some slip, some they lose for whatever reason. So what we're interested in is what we call a Key Ratio. Which is the ratio of Outlooked business, or Outlooked revenue versus the amount of Prospect revenue. So we'll take the scenario where a salesman has £200,000 worth of Prospects, and he's Outlooking £100,000 worth of business, which says that's a 2:1 Prospect to Outlook ratio. Now depending on what category of salesman that is, and depending on how skilled that salesman is, that ratio becomes a key indicator as to how successful they will be in realising that business. So if you, you probably know that we classify our business into two basic areas - which are ODP [Office Document Products], and [Production Systems Group] - now a reasonable ODP salesman who's reasonably skilled on a 30 day will operate on a 3:1 ratio. A good PSG salesman will tend to operate on a 2:1 ratio. So if you Outlook to me £100,000 worth of business as an ODP salesman, and you've only got £200,000 worth of revenue [prospects] - nine times out of ten you will not deliver your £100,000, unless you are highly skilled. You'd probably only deliver me £60,000."

"Now its at that point I can get into, if I was a Business Manager, I can sit down on a monthly one to one and go through the 30 day prospects, it's at that point I can also look at the 60 and 90, and look at those ratios as well. Because we operate on separate ratios, on 60 day we tend to operate on, depends again, 4:1, 90 days tend to be 5:1, you know I mean we can sort of make some, at individual level, and at a team level, some meaningful overlays. Because what happens at a team level is the business manager will then take all those individual Outlooks on a 30 day basis and say 'OK I've got ten people who are all Outlooking on £100,000' - it says, 'I should deliver a million pounds worth of business this month' - from those ODP salesmen. But I've only got two million pounds worth of prospects, therefore I wouldn't call a million if I was that business manager - I'd call something like 600,000. I'd still try and attempt to deliver the million, but what they will do is they will overlay the Outlook to me and say, 'I'll deliver you 600,000' - at which point I'll turn round and say 'well what's your plan. What's your prospect bank', yeah - let me have a look at the ratios and say 'well I'm sorry I still need you to deliver the million', 'so what are you going to do to bring the business forward?', but it becomes a much more meaningful debate."

The structuring of work through the Selling Process is an essential pre-condition for the effective use of the measures described above. However, effective measurement of the Selling Process is not universally pursued within Xerox. The effective measurement of the Sales Process is seen as an essential element of the search for improved F2F productivity, and lack of consistent process measurement is identified as a significant problem. The role of process measurement in the drive to improve F2F productivity is contained in the following:

[15, 28, 1999] "...well, same thing - it came out of the factory. Now, applying it [process orientation / management] to a white collar task, particularly a sales force task, is quite difficult. But if you go into a factory, KPIs and all these good things, you lay out the process, you have in process measures, each of those process measures you have tolerances, upper and lower control limits, yeah, and you have a standard and you know whether the process is in control or not, and then you have continuous improvement to say, 'well, OK, I've got to try and improve this'. Now, the same philosophy can be applied to a salesperson and make them more productive. Or you can use the more English approach which is to say, get out there and beat the hell out of them and just come back in with more orders. Now, without being too rude to my colleagues in the UK, the UK tends to prefer the sort of beat the drum approach to sales productivity. The companies that have proven they can improve sales productivity are the ones that have gone through the discipline of saying, 'right, how many calls do you make? What's the success rate of those calls? What's the conversion rate?', and then you go back and you've got a proper measurement to go back and say 'Well I'll tell you what the reason your not productive is, your not making enough calls', or 'Yes, you are making enough calls, but you're not converting enough of them into orders' - and so you've got all the, you've got all the metrics. So, there are countries that are much much better at the more measurement side of it. There are parts of the UK - it almost depends, you can find some sales, I don't know if you go to Birmingham, you know you will find some sales managers who operate

the very disciplined. Others it's just 'get out of here and don't come back until you've got an order, right, I want three orders a month' - they don't do any in-process - that's results management, all they're doing is managing the end result. They're not managing the in-process."

It is recognised that Xerox (UK), the case site, does not compare favourably to other Operating Entities in terms of process measurement. It is also recognised that in-process measurement represents an essential element of F2F productivity improvement efforts.

[15, 17, 1999] "Believe you me, even on record, the UK is not strong at measurement of the process. We train a process. But if you go to somewhere like Belgium, smaller countries in Europe, they keep, they do, the sales people will keep diaries against those ten steps of the sale. And we can monitor how much they spend on each step, then you can start monitoring how efficient they are at converting from one step to the other, and you can do coaching and counselling to improve them, you're monitoring the selling cycles. The UK is not good at that. Not at all."

The requirement is to take in-process measures, as well as measuring the process results.

[5, 4, 1999] "It's the whole concept of why process, and why manage by process, in terms of it's the thing for - one of the big things is management by fact. So you need to understand, you need your objectives, you need where you're going to, you need information that fits between it. And it's the bit between having a Selling Process lined up like that, allows you to do your in-process measures of success, and not just wait for the result."

Xerox are beginning to address this inadequacy of in-process measurement. The application of IT to F2F activity has significant implications in this area. The application of IT in some cases improves process conformance, and, hence, improves the ability to measure that process. The use of IT by F2F people, and the process measurement implications of the application of IT to the Selling Process are discussed in Chapter 6.

Chapter 5 follows, in which evidence pertaining to Xerox's use of the Telebusiness and Ebusiness channels of customer engagement is described. Again the emphasis is on how these channels contribute to the aims contained in the Go To Market strategy.

Chapter 5

Telebusiness and Ebusiness at Xerox

5.1 Introduction

The premier theme of this research is the use of IT in Customer Engagement operations by Xerox, a holistic, process oriented organisation. Three direct channels of Customer Engagement have been studied in depth: F2F, Telebusiness and Ebusiness. In Chapter 4 the findings from interview and documentary evidence pertaining to the F2F channel were presented. Those findings were concerned at root with the improvement of F2F productivity as part of the Go To Market strategy, and Xerox's focus on processes was shown to be a key element in that initiative. Chapter 4 revealed a shift in focus for Xerox; from treating F2F productivity in isolation, to considering F2F productivity as but one element of a wider, holistic Sales Productivity. Direct Customer Engagement now comprises three integral elements: F2F, Telebusiness and Ebusiness. At Xerox, the Telebusiness and Ebusiness channels both play a major role in the improvement of overall Sales Productivity.

This Chapter presents the research findings concerning the ways in which Xerox operate their Telebusiness and Ebusiness channels. It provides a description of "the saliences that are identified at the site" (Lincoln & Guba, 1985) that participants suggested were important in Xerox's approach to operating these channels. As with Chapter 4, the saliences identified by research participants concerning Telebusiness and Ebusiness are overwhelmingly related to the improvement of Sales Productivity. And again these saliences are bound by the Go To Market strategic context.

As with the F2F channel, IT plays an integral role in Tele- and Ebusiness operations; but findings about the use of IT in each of the three channels studied are reserved for Chapter 6. This Chapter begins with a description of Xerox's approach to Telebusiness – its history, and role in the delivery of Go To Market strategy.

5.2 The Development of Telebusiness at Xerox

Telebusiness at Xerox began in the mid- 1990s as a response to the difficulties of operating the F2F channel in particular countries. Direct Selling (or Teleselling), as it was then known, was first introduced:

"...as a result of specific market characteristics in Saudi Arabia and Ecuador, which hampered sales activity. In Saudi Arabia, most companies are owned by the Royal Family and Face to Face visits were difficult to arrange. In Ecuador Face to Face visits were difficult due to the danger on the streets." [14, p1, 01/97].

Direct Selling was piloted in the UK in September 1995. Promising results led to the decision in early 1996 to disband the pilot team, and to implement one Direct Selling team per Customer Business Unit (CBU) throughout the UK. Each team approached the task of Direct Selling in a different way, and the early period of implementation was one of experimentation and CBU flexibility. The approaches varied as to who undertook the task (existing F2F people or a dedicated team), the territory covered (exclusively Local Government customers or an equal mix of customers etc), and whether the Direct Selling was managed as a sales channel in its own right, or as an enabler to help increase coverage effectiveness.

The 'original vision' for Direct Selling was that it would operate as a genuinely viable channel in its own right, and that Direct Selling territories would contain an equal mix of customer types. The initial strategy was "...to set up each team to operate Teleselling as a Channel, with the objective of winning and closing business over the phone" [14, p2, 1999]. A framework for successful implementation was drawn up, including a set of key disciplines and key hinders. These are shown in Table 5.1 below.

Direct Selling (Teleselling) as introduced in 1995/6 is similar to the TeleCoverage strand of contemporary Telebusiness described below. Following the introduction of Direct Selling, Xerox began also to experiment with the various means of generating sales leads:

[14, 28, 1999] "...so what we set up to do, I mean the UK has been doing this now for the last 2 or 3 years. Lots and lots of Telebusiness. Of all flavours. We do, we've experimented with just about every kind of campaign that you can run, based on Telebusiness. We've done local radio advertising in individual cities. We sort of hot house a city with a load of advertising and set up a number and say 'call this number' and see what kind of response you get. Or you bombard them

all with mailers and then you follow them up. Or you put advertisements in various newspapers, you can put in tear off coupons, you can have ring back or fax this back. And you can measure them all and say which worked, which didn't – and you can say 'well this was in The Scotsman on Tuesday and we got X response rate doing that'. So we've been doing all this and we've evolved several strands of this Telebusiness."

Table 5.1 - *Disciplines and Hinders in Direct Selling (1996) [14, p2, 1999]*

Key Disciplines	Key Hinders
To drive the sales as far as possible without resorting to an appointment.	Inconsistent message.
Within the 1st 3 months all appointments to be justified to sales manager.	No tracking or feedback of results.
Pure coverage is not enough.	"Appointments are OK"
Pure appointment setting is not enough.	No training
When engaged in Direct Selling, no other subsidiary activity should take place.	Poor database.
When in room no distractions.	Poor environment
Visibly track all key data and use it to leverage activity and motivation.	'Hands-off' management approach.
Continual coaching – daily.	Weak management
Frequent small incentives.	Wait and see approach.
Frequent senior support – and visible.	Inexperienced people / sales manager.

There were three 'flavours' of Telebusiness in operation at Xerox in 1999: TeleMarketing, TeleCoverage and TeleSales. These are described in turn below.

5.3 TeleMarketing

In TeleMarketing (as introduced in Chapter 4), the Telebusiness Centre (TBC) is responsible for the performance of stages one to three of the Selling Process. Telemarketing:

[11, 9, 1999] "...takes you through steps 1 to 3 of the selling cycle. It's basically uncovering, identifying your prospects, making the initial contact and qualifying their interest. So you're doing the beginning part of the selling cycle. Then you are passing over that opportunity... to the [F2F] sales force... And it's basically a way of funnelling your business. So you are looking for the opportunities with a wide net of people that are not highly trained and are very productive at doing that. And then you pass over the call, the opportunities to people who are more highly trained and are then less productive – because they're spending more time to get, in going through that. That's Telemarketing."

There exist two sub-strands of Telemarketing: *Campaign Telemarketing* and *Relationship Telemarketing*. Both involve proactively contacting customers – they are Outbound rather than Inbound activities. The former involves the active generation of sales leads by the TBC, and then the passing of those sales leads to the F2F sales force. Relationship Telemarketing involves the TBC maintaining regular contact with customers and potential customers, understanding their requirements, and waiting until a selling opportunity arises – then passing that selling opportunity to the F2F salesforce. The process of Campaign Telemarketing is summarised in the following:

[11, 75, 1999] "...what we do, if we take you through the TeleMarketing sort of idea, what we do is we select a highly targeted list to go after. So we will, dependent on what the campaign requirements, we will then check that the details are correct, i.e. that Matthew is spelt with a T and rather than without a W and all that sort of thing. We then mail, mail out to those people in blocks that we can actually have the process capability to follow up on. So if we've only got two people working on it then it's only as many calls as those people can make, we will send them out in blocks by the week. We will follow up, we'll then generate qualified sales leads, we send that over to the, for the outside sales force, or for TeleCoverage [see below] to do the follow up."

Relationship TeleMarketing represents a less 'aggressive' approach to capturing sales leads, and is an essential element of Xerox's Intelligent Coverage sales philosophy (see Section 5.6 below)

[11, 99, 1999] "Relationship telemarketing will work very well with that high end, industry solution selling [in ISO]. The reason that those people at the top end of the market are expensive to the company is because they're highly qualified, they understand the company, they're successful so therefore they're highly paid - but they have a low productivity rate because they're not good at, they wouldn't tend to be good at door knocking and going in on every new opportunity. So what we do is we add a little extra cost to them by, we, we provide somebody on the telephone here in the Telebusiness Centre to relationship market on their behalf. So they will look after, on the behalf of that salesperson, a whole raft of their cust... their potential customers. Understanding and building a relationship between Xerox and that customer, that potential customer, so that, and understanding their requirements, building that relationship so that when that customer goes into a buying window in possibly 2 years time Xerox is at the forefront of their mind, and then that's passed over to the field based salesperson who will then go in and close it, and continue that or start developing a fully fledged sales cycle. So you can afford to do that. When you have an average sale of $200,000 with a high profit margin you can afford, and you want to afford to put in that investment for a couple of years up front to develop and mature a market place for a salesperson. When you're talking about down the chain, down the food chain in effect, when you're talking about small printers, you can't afford to put somebody to be regularly in contact with the company when they're going to buy a couple of thousand pound printer. The economics aren't there."

The reader will recognise, from Chapter 4, the economic arguments expressed in the above. Chapter 4 introduced the concept of Task Substitution, and described the role of Task Substitution, and then Hybrid Selling, in Xerox's approach to Sales Productivity. Telemarketing was identified as one of three Hybrid Selling models operated by Xerox.

Both strands of Telemarketing involve the performance of earlier stages of the Selling Process in a comparatively cost effective manner, and contribute to Xerox's strategic aim of lowering selling E:R. Telemarketing enables a lower cost of sale, and facilitates the leveraging of F2F productivity.

5.4 TeleCoverage

TeleCoverage, the second of three strands of Xerox Telebusiness, involves both Inbound and Outbound elements. It involves the performance of all ten steps of the Selling Process within the TBC. TeleCoverage began operation in 1999, and is "everything the salesman would do but over the phone" [14, 20, 1999]. It is:

[11, 13, 1999] "inbound and outbound, but more greatly it's outbound. And that is the whole sales cycle. It is end-to-end selling, steps 1 to 10. Basically it, it does – it is a single point of contact [SPOC]."

As with TeleMarketing, there exist two further sub-strands of TeleCoverage. The first sub-strand is akin to the 'Fulfilment' model of Hybrid Selling described in Chapter 4. In this case, F2F people negotiate framed contracts with large customers, whose equipment requirements are then fulfilled via the TBC. It involves "agreeing with the salesman areas where the customer's happy to go with the whole thing " [15, 68, 1999]. Inbound Fulfilment proceeds as follows:

[14, 22, 1999] "We've gone into all our large accounts and, well we negotiate a sort of framed contract with them and give them a catalogue, and say 'there you are, when you want to buy something, ring this number'. They love it, because they don't have to chase salesmen all around the place, they ring the number and there's someone on the number."

With Outbound Fulfilment a framed contract may be in place, but the business must still be pursued:

[11, 12-13, 1999] "...it's not an easier sell, it's a different kind of sell. You are persuading people to buy from you possibly rather than one of the other preferred suppliers that they may have... You can contact them, you have agreed pricing and you have agreed products that you can sell to them. And we do that very very successfully across quite a large number of large, very large accounts."

Again with TeleCoverage there is a relationship building element involved. With large organisations structured of many locations around the country:

[7, 71, 1999] "the salespersons not going to be able to cover all the locations - but you can sell into it. But that framed contract needs to be set up in the first place. It's very very effective in the right circumstances. You know we've got, the present example is where the model is, has worked exactly like that, where we've got a framed contract and the Teleselling [TeleCoverage] person sells and develops, its more than just selling, they develop the relationship. In some of them they build such a strong relationship that they don't ever want to see a Face to Face person again. And it grows within an organisation, and they can almost see up and down floors what's, get a visual image of what people have got on what floor and how's Mrs so-and-so getting on and - and in another example... a phone contract was set up and these salespeople are selling £700,000 worth of business a year selling to small insurance, and not only that they wanted to buy fax machines, supplies, consumables and all from one person - it was better for the customer because they didn't have salespeople visiting, cheaper for us, and it was very very effective. You know there's a few models like that, but unfortunately not enough - the ideal would be to have hundreds of instances like that where we were just selling over the phone. Occasionally visiting with them."

The second sub-strand of TeleCoverage is not as well developed as the first. In Chapter 4 resistance on the part of salespeople was identified as a significant barrier to the implementation of Task Substitution and Hybrid Selling. This factor is visible again in the quotation below. The second sub-strand of TeleCoverage is:

[11, 13, 1999] "...where you would, in effect, take your traditional sales territory of an area, so geographically based lets say, or you could do it by industry sector - and you basically give the MIF, the Machines In Field, the actual Xerox equipment, to that person to then sort of farm. Making sure they're renewed at the end of their cycles and everything... And the inside salesforce, which are on the telephone, look after the current existing equipment, the MIF, and then the more experienced people then go after the harder business to get which is the non user new business. However, in our Go To Market strategy that hasn't quite translated yet. There's a big reluctance because, basically, if you asked a wolf to, did he want to let another wolf into the sheep's pen, he'd probably say no, because of course he wants to keep all the sheep for himself. And that's very similar to the current direct sales force. They want to keep all the users for themselves because they're easier to look after."

5.5 TeleSales

The third Telebusiness 'flavour' is TeleSales. TeleSales is the least well developed area of Xerox's Telebusiness operations. It is a strictly Inbound area of business; the call will always be initiated by the customer. TeleSales will in effect become 'Xerox Direct', and demand on the part of customers will be generated through increased advertising.

[15, 68, 1999] "...TeleSales is in a sense the Dell, it's the inbound, you've got to generate inbound traffic. This is people calling in and saying – 'saw the ad., 4.99, I want one'. You know we don't have much of that because, as a) we don't do the advertising in that way, and b) we don't have a lot of people just calling in, like you know, it's nor Dell, or Gateway. We don't have thousands of people a day calling in saying I want to buy one. Would like to, but you've got to spend the money to do that."

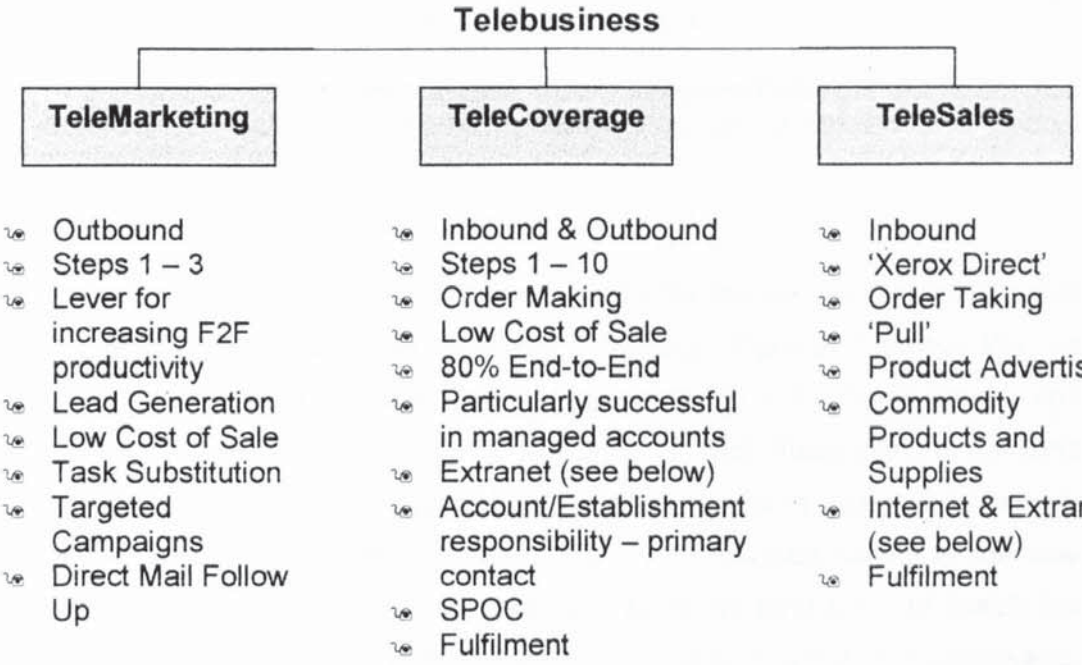
TeleSales involves the performance of Selling Process stages three or four to completion over the telephone. Stages one and two (Identify Prospects & Make Initial Call) are performed by the customer, but stimulated by Xerox publicity This element of Telebusiness is targeted towards lower value, commodity or supplies type products – rather than high value solutions (GMO rather than ISO).

[11, 17, 1999] "...the last part of Telebusiness is TeleSales, which is a new area which we haven't currently developed, which is all about inbound. It's spending large amounts of money on advertising to drive, in effect, a Xerox Direct - where you ring up and you say I want one of those. And anything you want that person will sell to you. We're in a transition phase where we have inbound, and sit in TeleMarketing, that answer our free-phone numbers, but all they do is they generate a lead from an inbound call rather than an outbound call. We want to take that through to the next step which is actually taking an order with them. So we're going to slowly start developing TeleSales. It won't be a big bang it'll be a step by step approach."

The three flavours of Telebusiness performed by Xerox are summarised in Diagram 5.1 overleaf. TeleMarketing, TeleCoverage and TeleSales play a significant role in Xerox's attempts to increase revenue and reduce E:R, and Task Substitution and Hybrid Selling underpin the integration of the F2F and Telebusiness channels. Telebusiness facilitates the Go To Market initiatives [14, p9, 01/99] to:

- *Focus field sales resources on high value, new systems sales, solutions and outsourcing transactions, [and to],*
- *Shift smaller purchases to lower cost, more convenient channels.*

Diagram 5.1 – *TeleMarketing, TeleCoverage, TeleSales [7, p6, 1999]*



5.6 Telebusiness and Go To Market

Telebusiness plays an integral part in the delivery of the Go To Market strategy described in Chapter 3. Modern Telebusiness was introduced by Xerox in an attempt to remedy the now familiar inadequacies of the traditional, F2F intensive, Customer Engagement model. The F2F intensive model is ill-suited to a coverage-led Market Engagement strategy. A sales philosophy of Intelligent Coverage requires the use of low cost, broad reach (high capacity) channels (Telebusiness, Ebusiness) in partnership with the F2F channel.

The Go To Market aims of increased revenue (from $400m in 1997 to $880m in 2001) and reduced E:R (to approx. 10%) are reflected in the 'Telebusiness Strategy Outline' [7, p5, 1999] shown below:

- *"To maximise the use of the phone to help find, get, keep and develop profitable business,*
- *To use the phone to significantly lever field sales and business partner productivity,*
- *To recognise that customers choose how they buy, however...*

- *To influence, in particular those customers with less complicated and low average transaction values towards lower cost channels, mainly through making it incredibly 'easy to do business with Xerox'*
- *To ensure the Telebusiness strategy is fully integrated with the Go To Market, multi-channel sales and marketing strategy so as to maximise a distinct competitive advantage."*

The Telebusiness channel contributes to the Go To Market strategy in terms of both Optimal Channel Mix and Intelligent Coverage. Optimal Channel Mix, as described in Chapter 4, requires the integration of the F2F, Telebusiness and Ebusiness channels. This integration is facilitated by Task Substitution and Hybrid Selling – which are in turn predicated on the performance of sales work through the Selling Process structure. Optimal Channel Mix involves selling in the way customers want to buy, but also attempting – as far as possible – to match the value of a transaction to the cost of the channel through which it is processed. This means focussing the F2F resource at high value, solution oriented sales – and pushing lower value transactions through lower cost channels, i.e. Telebusiness and Ebusiness.

5.6.1 Telebusiness and Intelligent Coverage

Intelligent Coverage, as introduced in Chapter 3, involves, at the very least, making contact with decision makers (Xerox users and non-users) four times per year. The logic underlying the Intelligent Coverage philosophy is encapsulated in the ACCH marketing model, where:

A = Awareness,
C = Coverage,
C = Consideration, and
H = Hit Rate.

Each of the ACCH elements are measured – as a percentage of the market total – through regular market research. The process is described in the following:

[18, 90, 1998] "...As far as the process is concerned - the key metrics are what we call ACCH. Have you heard of that? ACCH is Awareness, Coverage, Consideration and Hit rate. Right, so awareness is, what we do is go outside and

do outside market research, you have metrics on this, and where you go and research three or six thousand people twice a year, who are acquirers of our product or other people who are acquirers of a business printer say, not necessarily ours - just generally, and you say, 'what manufacturers are you aware of, who make the product you've just bought?' - and they'll list them out, and if they mention Xerox then they have AWARENESS of Xerox, if they don't they haven't - and you don't lead them at all. Then you say 'OK, now those are the ones you are aware of, in the last 6 months have any people from those manufacturers spoken to you, which ones have actually spoken to you in the last 6 months?' - and that's COVERAGE. So they say somebody actually had a selling conversation with you in the last six months - if they mention Xerox from that then they're being covered by them. So it's awareness, coverage - and CONSIDERATION rate is, 'of the people that you are aware of, and have covered you, when you made your purchase who did you consider buying from?'. And again if Xerox is mentioned then you get considered. And then of those you considered who did you buy, and that's the HIT RATE. So it's a cascade effect, so you might get someone who, you know you get 50% coverage, 25% per cent consideration rate and 90% percent hit rate, or something like that. And you can see then what we're doing in market share. Because the next step mathematically is market share. That drives market share."

The question driving Xerox's coverage strategy is "are we getting our name in front of a 100% of our customers, at least once a year or at least four times a year?" [17, 58, 1999]. The role of Telebusiness in covering 100% of the decision makers in the market is crucial. This is self-evident considering the limitations of the F2F channel, in terms of market reach capacity. Increased use of the telephone is necessary in the work of F2F people (and in those accounts maintained exclusively by F2F people), and an increasing reliance on the Telebusiness channel for market coverage is required also.

[17, 58, 1999] "...this question was linked to TeleSales [Telebusiness]. Now, the whole idea of any coverage planning that you do is obviously to improve the awareness, to improve your coverage, therefore improve the consideration, and therefore improve your hit rate. Now, it's spooky, if you improve your coverage and you improve your consideration, your hit rate as a percentage tends to go down - because you tend to be considered by more people, therefore you might not necessarily get as high a percentage of hits. It's one of those classic conundrums. The idea is that you maintain your hit rate while improving your coverage and your consideration. That means you get more business. So the question that we have says, first and foremost focuses - brand awareness is taken care of by Group Marketing etc – the key thing that I have with my salespeople is how do we improve our coverage. Which goes back to the coverage contracts we were talking about and things like [Telebusiness]. And therefore you can actually kind of coverage model, given your understanding of the marketplace, what you want to achieve, but also given the market place requirements and given the customer requirements - because the marketplace requirements are that if you're selling a solution, I need to spend some Face to Face time with a real person. If you're selling a commodity - then I don't necessarily, I can do it over the phone or over the Internet or through Ecommerce,

whatever, yeah. But by the way, if you're selling a commodity, 9 times out of 10 commodities are bought through what we would call a framework contract or a big contract. But I, so I do need to talk to you to set that contract up, and then you fulfil it through a different media [Fulfilment Hybrid Selling, TeleCoverage]. So, when we look at coverage and we look at [Telebusiness] versus direct [F2F], what we tend to turn round and say is, well on an establishment - we break territories down into what we call decision making units, and end users yeah - now decision making units tend to be covered by [Telebusiness], and big end user establishments tend to be covered by Face to Face. Small establishments tend to be covered by Telesales."

F2F people negotiate 'Coverage Contracts' at the beginning of each month, which state which customers and non-customers should be phoned, visited or mailed that month. (These Coverage Contracts are created through, and linked with Xerox's Market Data Base, and will be described further in Chapter 6). F2F people are required to cover (make contact with) the accounts on their territory four times per year; and, depending on the perceived potential value of an account, the Coverage Contract will stipulate that contact should be Face to Face, Telephone or Mailer (see Chapter 6) based - or a mixture thereof.

[14, 32, 1999] "And we target our salespeople with 4 contacts a year. So its either 4 visits or its 4 phone calls or it's a mixture of the 2. This is how we focus their minds on what they ought to be doing day by day. Because most salespeople, like this their very much deal driven. They appear to be doing not very much, but what they're doing is almost sniffing around waiting for something that looks like a deal, and when there's a deal on offer they're in and out of the place 14 times a day, trying to sew it up. What we're trying to say to them is this isn't the way we want you to work. We want you to work in a processed way so that when something comes up we'll know about it. Because what you're doing is laying a line of bricks, every time you ring them up or you walk in, your just, it's a bit more on the relationship..."

F2F people are actively encouraged to make more use of the telephone in covering their territories, and this in itself has a positive impact on their productivity. Chapter 4 noted that Xerox's 'traditional' approach to F2F productivity was focused on creating more time for physically meeting customers. The initiatives described in Chapter 4 do indeed have the effect of increasing potential F2F time (through Task Substitution & Hybrid Selling), but F2F people are now encouraged also to spend more of their time covering their territory using the telephone:

[5, 42, 1999] "For the last 2 years we've confused ourselves rotten, with TeleMarketing, TeleCoverage, TeleSales, Tele this Tele that Tele... there's 2 steps that we've made, coming along in the last couple of years. One is from

having a Face to Face sales force that we forced out on appointments - we've changed the approach and we now say to those people – 'hang on, is it relevant to do, or is it, isn't it much more productive to do a phone call?'. Yep, so this is the enabled piece for these people just to use the phone more often. And it's great because their productivity has gone up phenomenally - and they've got teams here right, every Wednesday is a phone morning. Say from 10:00 till 12:00 every Wednesday, 10 people are in the room and they're making phone calls - if they make 10 calls each it's a hundred calls, and in appointments those 10 people would have take 2 weeks to do that normally. And they uncover stuff and whilst you've had to lead a horse towards the water or business, whilst we've had to force their arm to do it, most of them having done it now go – 'Ooh, I'm rich you know, it works'. But it still needs tightly managing because people drift off, away from that. The second side to that is TeleMarketing, TeleSales, TeleCoverage of a dedicated unit, they're dedicated - they don't go out ever."

The increased telephone usage enables improved coverage of large accounts. Within any large account there are likely to be many individual establishments, and whereas the F2F resource is focused on the coverage of high level decision makers within those accounts, the remaining establishments must also be covered. Telebusiness facilitates this coverage. As described above, there are situations in which the F2F people and TBC agree on which establishments or accounts on a particular territory should be covered by each channel.

[8, 156, 1999] "...at the moment we, we have a Commercial Accounts Office here right, which is Manufacturing, because we're a Manufacturing team, we have about 16 paid people based in Birmingham and they're the ones who get buffeted around the country, a team of 22 – most of them sit here, right. We have accounts that need covering from Land's End to Scotland and one of them is, for example General Electric, which is a conglomerate which owns – biggest company in the world – but it owns things from, you know, transports to GE Capital Leasing to... we can't cover Scotland and we can't cover because there's all sorts of business. So we've gone with Tele[business] that sit in Uxbridge to help us cover GE."

TeleMarketing and TeleCoverage are essential if the Coverage element of ACCH is to be improved – if 100% of the buying decisions in the marketplace are to be covered by Xerox.

[5, 42, 1999] "...we have a, an expensive but effective Face to Face sales force, though we can't cover all the establishments we've got, if they did we'd need a sales force 4 times 5 times 10 times bigger than what we've got. Can't afford that, wouldn't want to afford to do that. So we have an opportunity to pass some of that coverage and selling across to a better way of doing it, or more effective way of doing it - which is [Telebusiness]. Now I fundamentally believe that within any one territory there's a mix of service and Face to Face selling - on the phone - within an account which might be multi-sited, there is probably a place for some [Telebusiness] and some Face to Face. The way I come to it is, we need to set it up so these people work together - also the bloody good systems [the subject of

Chapter 6] - just one, just one salesperson, but you've got 10,000 accounts - no way in the world can you cover them. But you pick your top 200 or 250 that need to see you, and you work those. And the other 9,750 we'll leave to this Teleseller, which will actively work it - now the other coverage of it, say if they can sell they sell, if they need a salesperson to go in they talk to them, but they work as a team. And very effectively."

Telebusiness, like F2F, works to the four contacts per year cycle. The contacts made with customer and potential customers are geared to the building of relationships, and the collection of market intelligence: to Intelligent Coverage.

[14, 32, 1999] "The Telebusiness centre works on that same cycle, 4 contacts a year. We found that works very well, its about the same sort of period between the call, and it doesn't make the customer feel threatened, and it keeps you in the picture. You know if anything is going to come up there. Because what we're always driving for is Consideration. If we can get considered we've got a better than even chance of winning. So we have to drive up the Awareness rate and that drives up the Consideration. This is one of [another participant's] favourite sort of bits (is it the ACCH?) that's right. So it's doing that and we found that the systematic Telebusiness cycle is very very effective, because the Coverage rate is 5 times that of a direct sales person. For example you can do, you can do at least 10 effective sales calls a day on the telephone, we target them at more that that. It's 20. But you can do at least 10. So you can do far more than you could even if you were chasing around all over the place you know, the productivity level is so much higher."

5.6.2 Telebusiness : Channel or Enabler?

There appears to be an ongoing debate within Xerox as to whether Telebusiness should represent a viable channel (akin to a stand alone business) in its own right, or whether instead it should be treated as an enabler to Intelligent Coverage. It is evident that for Hybrid Selling models there is a requirement for close co-operation between the Telebusiness and F2F channels, and that this co-operation is facilitated by the structuring of work through the Selling Process (as described in Chapter 4). The TBC has a significant role to play in the Intelligent Coverage of the market place, and the building of relationships with customers and non-customers. Telebusiness will, in one vision for the future, become a stand alone business, rather than a support function to other channels. Xerox will create an Inside and an Outside salesforce, of equal stature:

[11, 106, 1999] "Yes they're equal, they're just doing a different job, because that's part of the thing, Telebusiness and particularly TeleMarketing is often seen as a support function rather than a channel in its own right. That's where we're

going away from, we are going, we will be forming ourselves this year hopefully into a CBU."

Potential conflicts between this vision and the Intelligent Coverage sales philosophy have been identified. Positioning Telebusiness as a stand alone business, with its own revenue target, could potentially confound the drive to cover the market more effectively, and to build relationships with current non-Xerox users. Measuring Telebusiness in isolation contradicts the holistic ethos of Sales Productivity improvement, and a distortion of priorities could result. The arguments against a Telebusiness CBU are contained in the following quotation:

[5, 50, 1999] "Part of the trap that we're getting ourselves into is the way that we're positioning the Telebusiness unit at the moment is, we're trying to set it up and measure it as a stand alone business. People setting - if I've given myself a forty million target, that's for Telebusiness - so they're in the trap now that we're in, which says 'you're chasing business', which doesn't improve your Coverage, and it doesn't improve market share because what the... you go in you meet a customer - is there a deal? No - I'll walk away and won't talk to you for 2 years. I'll walk into you as a customer who says yes, you sign here, you sign, shake your hand then you don't see me for 2 years. The whole concept of what we're trying to do with the Coverage thing is to build relationships and maintain relationships. Now, these people [F2F people] aren't doing that, because historically they've been, I'll paint it black and white - they've been knock and run merchants, but that's a bit black and white. So really the way they worked, if you give them, if you give the [Telebusiness] to it to support it as a coverage mechanism, and drive the coverage not the business - you could substitute the weakness in here, with that. The fact that we're making that stand alone and saying 'this business should deliver the forty million' - is now making them pick and choose what they cover, and they'll ring a customer and there's nothing opening for 2 months, 2 years, I'll not ring them back for 2 years. So all you've done is actually replicated what you already have, and what's worse than that - is you've actually caused a conflict model of 'its mine, its mine'. Whereas if we'd actually put it together and said 'they should fit across like that' which is still what I'm trying to do, then you don't have the conflict model, gives you more than what you had as 2 individuals. And I'm, I'm actually going to Bristol this afternoon - we're in the middle of doing a whole lot of work on this at the moment."

There is a concern that by measuring Telebusiness on its individual revenue performance, the synergistic possibilities of Intelligent Coverage could be obscured: effective integration of the channels could be hindered. This issue was unresolved at the time of the research. There was a common recognition, though, that the Telebusiness (whether CBU or not) and F2F channels must be 'partner engaged' to deliver the intended holistic approach to Customer Engagement operations.

[3, 25, 1999] "we've got some challenges there, and you know you talk to the Telebusiness and they're evangelists – and they have to be partner engaged with the CBUs... To really make sure they're in tandem, they're in partnership – so that's where this holistic view is."

5.7 Telebusiness Productivity : Processes and Metrics

In the previous Chapter the views of participants as to the role of the Selling Process in the productive use of Task Substitution and Hybrid Selling were presented. The Selling Process structures thought about, and the operation of, these disciplines. The Selling Process is necessary for the effective integration of the F2F and Telebusiness channels – and so also for the pursuit of Optimal Channel Mix and Intelligent Coverage. It was also found that the measurement of the Selling Process, as performed by F2F people, was not universally strong. The same can not be said for those stages of the Selling Process performed within the TBC, or other processes structuring the work of Telebusiness activity.

The role of Xerox's process orientation in the productive use of Telebusiness can not be overstated. Telebusiness productivity is absolutely dependent on well designed process structures, the application of technology to those processes, and then their intensive measurement. The role of IT in this area is prominent, and is described in the following Chapter.

There is a clear view within Xerox that process orientation is necessary for productive Telebusiness. In response to the question: 'So you could not do these strands of business [Tele- Marketing, Coverage, Sales] without a process orientation?' – the simple answer is:

[11, 66, 1999] "No, no you couldn't".

As Section 5.2 described, Xerox began Telebusiness work with a number of independent geographic teams. In 1998 these teams were replaced by a single TBC located in Uxbridge (UK). The reason for the centralisation of the Telebusiness resource was to improve process standardisation and conformance. Xerox's process orientation:

[11, 58, 1999] "...helps make sure that you get consistency and conformity across the whole of that process area [in this case Telebusiness and the Selling

Process]. Which is why we've brought everything together into one operation. What we did last year is that we had a number of operations around the country doing different but similar things. We've now brought them all together into one big operation here at Uxbridge. So we can get conformity of process."

Telebusiness is an area characterised by total process orientation. Whereas the F2F sales force are regularly 'out of sight', Telebusiness activity is centralised and 'static' – it is therefore amenable to closer management and measurement.:

[15, 32, 1999] "Now, one big benefit of a Telebusiness area is that Telebusiness is pure process. If you go into the Telebusiness Centre it's not left to chance like it is with the sales force. It's 100% process. And all the sub-, whatever process you follow... and you drive it, you drive the productivity."

It is possible, of course, that Telebusiness operations could be performed in the absence of clear process definition and applied technology. However, it is unlikely that such operations could be performed to a similar level of productivity. The following illustrates why this is thought to be the case.

[15, 76, 1999] "...let me give you an example. You can have an inbound Teledesk right , somebody calls in and says 'I want to buy one', if the person doesn't have a process, they phone in and says 'no all I want is, I want a brochure of your do dot dot product' - if every time this call comes in and the person has to say, 'anybody know how to send a brochure out?' - or take a note of it on a piece of paper and then go and find the brochure and put it in an envelope. What you've got to have, on the screen, you have to say, 'OK Mr Customer, you want a brochure', pushes the button, up comes all the brochures – 'now which one would you like', boom boom boom bum bum, and they click on, they click on the one, and they say 'OK, that'll be in the post tonight at six o'clock, you should get it tomorrow morning'. Done, boom. Three minutes, finished. That then automatically goes to a back office, pull the brochure, put it in an envelope and send it out that night. That's why they're called procedure, that's proceduralised. And that's (and that's enabled through technology) - yes, you build into the technology. That means you can be very productive. I can now do a hundred calls a day with the same operator. If I hadn't proceduralised it, if they've got to stop and say 'oh, yes, now how do I do that, wait a minute I'll write your name on an envelope here, and I'll go and get, I've got a big rack of...', they're doing 20 calls a day maximum. So there has to be a process, its not a clever process but it has to be on, you know, and the more it can be on the screen. Believe you me, it's not easy to do, you have to think of all these things, and build it into the screen. Same with TeleMarketing, its scripted, alternatives, loops, and you can get very, you know, we're getting, compared to what we used to do, we're now getting call out rates a hundred, over a hundred per cent higher than we used to, using technology to support."

Through their experiences over time, Xerox have learned that productive Telebusiness requires process structure, the application of technology, and the measurement of activity.

[15, 35, 1999] "TeleMarketing is highly proceduralised, we've got that very – TeleCoverage is a little bit more like a salesforce and we don't tend to proceduralise that quite so much, although we're trying to, because we've learnt that the only way you can get real productivity is to proceduralise it, then automate it, then measure the hell out of it. Pretty ugly way of working, you probably wouldn't like it, I wouldn't like to do it..."

The metrics used to measure the productivity of Telebusiness work at the time of this research ran into:

[3, 44, 1999] "...Oh, an enormous number. It's like an engineering business at the moment, it's a factory line – you know, and it's probably been updated since you went down..."

Again, these measurements are facilitated by the application of IT to the Telebusiness processes, and Chapter 6 describes the use of IT in the TBC in further detail. The Section below presents research evidence related to the third direct channel studied – Ebusiness.

5.8 Ebusiness at Xerox

Ebusiness is the least developed of the three direct channels of Customer Engagement studied in this research. Two models of Ebusiness Customer Engagement exist: one for General Markets Operations (GMO), and one for Industry Solutions Operations (ISO). The role and structure of Ebusiness in each sector is different, but both modes of implementation were found to be at an embryonic stage of development.

A number of reasons for the apparent reluctance, on the part of Xerox (UK), to rapidly integrate the Ebusiness channel have been identified. These are summarised below:

5.8.1 Global Systems & Investment Priorities

Xerox's approach to system (or new channel model) implementation is to develop once, then replicate world-wide. In the case of Telebusiness, the UK is seen as comparatively advanced in terms of model development. The UK Telebusiness model will be replicated across Europe:

[11, 122, 1999] "And the current drive from the new CEO in the states Ric Thoman [since departed] is to develop global systems, so that you develop once and roll out across the world. We've got a model here in Telebusiness that is being rolled out across the whole of Europe. We're, we were the first Telebusiness Centre, there's a new one going into Germany next month. They are developing exactly the same platform we have, using the dialler, using the databases and they're developing things in parallel, and we're going to copy from each other. You know you develop it once and then roll it out across the other Centres. And that that's very similar to what will happen [with Ebusiness]."

Other Xerox companies are further ahead than the UK in terms of Ebusiness model development, and UK management are reluctant to duplicate development investment. Xerox (UK) decided to focus on Telebusiness first, rather than Ebusiness, and are now waiting for other Xerox entities to prove the Ebusiness model before implementing it in the UK.

[3, 46-48, 1999] "...it's very much in its infancy. The nervousness when you're sat in the UK company, not world-wide – is, you probably don't want to lead with this investment from the UK profit line. So we, [another participant] is doing a good job getting us ready on the edge of what does the world-wide initiative want to do. Dell have proved the model. The debate is should we have missed a generation and gone to Ecommerce straight from, straight away. I think that was too bold... We want to see pay back. If you look at the countries across Europe, it seems like Finland, Norway – the remote geographies use technologies much better than the Frances, Germany – the UK come in about 6th and 7th across Europe. So what we want is the development work done elsewhere, and then lift the model, not build our own. We just have to get ourselves, if we had to accelerate..."

It is interesting to note the reasons suggested as to why some countries appear to be implementing Ebusiness technologies at a quicker pace than others. A number of participants were of the view that the conquering of temporal and geographic barriers provided the impetus for new technology adoption, and that the relative scale of these barriers is related to the pace at which a country adopts new technologies for business use:

[2, 106, 1999] "Maybe teleconferencing starts to become a viable means by which you can communicate without actually having to visit. To cut down that windshield time or whatever you want to call it in this country - but what's traditionally classed in the States as windshield time, which they endure an awful lot more of than we do here. I think, if you look at, the trends in the States will go quicker because of the distances between their business communities. Here we have the luxury of being able to get to places a lot more quickly therefore, you know, you just get in the car and drive to Birmingham, and you've gone from London to Birmingham, and you've gone from number 1 city to number 2 city in maybe an hour and a half, unless it's today. So you know, there, when there are barriers people will fix them with technology. Until those barriers arise I don't think they will, they'll stick to the old ways of procuring."

5.8.2 Culture & Cultural Change

Aside from the UK's wariness in terms of investment, there exist cultural barriers to the acceptance of the Ebusiness channel. This 'problem' is neither Xerox-specific, nor technology-specific, and is rooted in the human capacity for, and acceptance of change. The problems of Ebusiness acceptance are equally applicable to Telebusiness acceptance:

[5, 62 & 80, 1999] "...you have to remember that we're going, the customers are going through a cultural change as well. And again, going back to the telephone piece, we'd ring customers up, because I ran the [Telebusiness] unit here last year – I'd sit and listen to people on calls. They'd ring up a customer and say 'Hi, I'm from Xerox' - 'fine, I'm on contract' – 'fine, want to talk to you about this product' – and the customer would automatically, you'd hear them open a diary on the desk, 'Oh, well you can come and see me next Thursday. Say 'well, why do I need to come and see you?' And you'd literally hear the Teleselling people arguing with the customer as to why they don't go and see them. 'Why, so I need to come and see you?' - Well you don't do you -'So shall we talk about it now?... So...so I'm not sure about the Internet yet, not because we're not ready, I'm not sure whether the market is ready. It's yet to be proven, the jury's out – it will, there's no doubt it will happen."

With Telebusiness and Ebusiness there is a belief that "certain customers will have a wish never to do it that way" [11, 123, 1999]. The cultural resistance to new modes of procurement limits the pace at which business can be funnelled to lower cost channels (Telebusiness & Ebusiness). However, a societal trend towards Ebusiness acceptance is apparent. As consumers become more comfortable with using the Internet in their home lives – to communicate and shop – the readiness on the part of business customers to do Ebusiness is likely to increase also. Customer culture then becomes a driver of Ebusiness activity, rather than a barrier.

[13, 77, 1999] "yeah, in fact if we look at the fact that we're now, people are banking on line. You know they can do their banking on line. Who would have thought 5 years ago that people would have done that or that, I guess without thinks like direc - Direct Line, I mean First Direct coming in to do telephone banking, everyone took up on that - and people started to think 'oh its really easy', and people are starting to trust the Internet for a lot more financial transactions. And the people who use it, people are using it already to do their financial analysis, their banking and all sorts of things like that. And I think it's, it's down to consumer confidence. People, you know, general up take of it and things like you know, never underestimate the impact of things like Freeserve will have on the peoples comfort zone. You know, increasing their comfort zones with using the Internet. To me, OK, that's the consumer market place but, you know, I don't care - the people that we deal with in business to business are still people. If they're using the Internet then we need to use it. And they're getting more comfortable

using it for their banking, research and for other information, so that we're getting into the culture now, we expect to find that information. Yes, I think in 2 years time we, you know, this is why we have to do it now or we're going to get left behind. Its not just about staying ahead of the competition. At the moment this is a bit of a differentiator, but I, I can't see that still being there in 6 months to a year... And I think it's, it's a cultural change we need for the organisation. You know, the first things you were saying is that the different ways to selling, you're going to look at it as a Face to Face sales process, and now you're thinking what about the other ways of selling. And I think we'd have to look at that because if we stayed in the Face to Face sales we'd die as a company. One, we can't afford to, we have to get our Expense to Revenue ratio down, because otherwise the competition will just come in and bite us.

There is a generational element to Ebusiness development also. It appears inevitable that the cultural barriers to Ebusiness use will evaporate:

[16, 112-114, 1999] "I think it's more of a social acumen - that people haven't grown up in the environment – it's an environmental thing. I mean, I think in 10 years from now when you have young kids that have been on a PC from 5, or from 10 even, when they hit the, when they hit the streets and hit the business you know, the PC is going to be the natural thing to work with - I think that's more of a environmental thing than anything. People just don't have the skills, so therefore they still have that fear, paranoia that, you know, this things going to bite me if I don't push the buttons right - or, the kids of today are just going to sit down and bang away, and not have that fear - and they're going to demand that I, I've got this box I carry around with me and if I can't work through that box I'm not going to deal with you - and vice versa. And you've got your people now that don't accept it. So its an acceptance work behaviour thing, that people will have to go through."

[Researcher] it's a social change going on you think (exactly) and eventually people will...

"...and you know if you look, I mean I'm American but I've been over here 7 years, but even if you go to the States now they are, a lot, way ahead of the UK - the UK's way ahead of most of Europe. But I went back 2 weeks ago, and I hadn't been there in a year, but everybody - I'd say 80% of people I met you know, I didn't, they didn't ask me for my address, they asked me for my email. You know, forget your phone number or your address, give me your email. And they have, I mean even kids pulling business cards out of their pocket. There's my email, write me some time. Amazing. I was impressed."

The cultural trends described above are clearly an interesting area of study; and Xerox are evidently aware of the cultural barriers to, and drivers of, change in procurement behaviour. As stated above, Xerox operate two models of Ebusiness – the GMO model and the ISO model. The sections below describe how Xerox operate the Ebusiness channel in each sector.

5.9 Ebusiness in GMO – An Internet Model

At the time of this research, Xerox were debating about what should be the Internet's role in the overall business model. The reasons for implementing Internet based selling are obvious, and are the same reasons – described previously – for the introduction of Telebusiness. That is, to reduce E:R, and to expand Xerox's reach to market. The Internet represents the lowest cost channel available at this time, and Xerox – through Go To Market – are attempting to increase the number of lower value transactions completed via lower cost channels. As noted above, Telebusiness has played a much larger role in Xerox's coverage and channel optimisation strategy. Yet there remains a place for Ebusiness.

The GMO market, as described in Chapter 4, consists of smaller customers, and is targeted towards the sale of low value, commodity type products. The GMO Ebusiness model is Internet based, and Xerox envision selling lower value products and consumables through the Xerox web site. The kinds of products thought suitable for sale on-line are:

[13, 25, 1999] "...if we're thinking about prime products that you would sell on-line would be your stand alone little printer, the one that you would sell to people who are buying PCs on-line etc. Small faxes, multi-function devices..."

In short, they are the low end products in the Xerox range that would appeal to the individual consumer. The priority for on-line selling has been supplies (consumables), and at the time of this research this area of business was proving successful. The strategy for GMO Ebusiness was, in 1999, as follows:

"*On the General Market (Internet) side of the business, 1999/ early 2000 will focus mainly on the LEARN, SHOP and partly on the SUPPORT areas of the Ebusiness cycle. From 2000 onwards the SELL element will be more aggressively and widely implemented. Given the increased awareness and visitors, plus the close integration of the web with current advertising programmes (not as close as it could be in the UK), we are starting to give customers a real choice of channels. One direct result is that we would hope to see the web used much more by customers in choosing Xerox/Xerox products, and completing the cycle by calling the TBC.*" [13, p2, 28/05/99].

Customers will view the Xerox web site and compare products, then place orders through the TBC. Actual selling on-line is problematic for Xerox, and the correct approach is still to be decided upon.

[13, 32, 1999] "The way we're tackling this is not really, not doing the traditional sell on-line from our Internet site, it's that – that will come in the future. But at the moment the problems probably to deciding, that are deciding what products, deciding the pricing of those products, that's one P, and you know it's the old marketing 5 Ps: price, product, placement, promotion – 4 Ps. And those are really a barrier to us going wholeheartedly into saying 'Hey, come to us, and we're selling all our products on line'."

The most problematic of the four Ps listed above appear to be Product and Price; that is, deciding the appropriate products to sell on-line, and at what price. In the first problem, Xerox are clear that low end, less complex products should be sold through the Internet. However, these products are currently sold only through indirect channels:

[13, 25, 1999] "The problem with those products is that at the moment they are only sold through channels. We don't sell those directly, so they're sold through distribution channels, through distributors, through dealers, VARs and re-sellers or whoever, and that to me is part of our problem in identifying the key product that you would wish to sell on-line... I mean at the moment those we can not sell because the agreement with our channels is that they are only sold through those channels."

And this:

[14, 35, 1999] "...holds us back a lot on Ecommerce. Because if we suddenly go direct to the market with Ecommerce and start trading, we're undercutting all the people we've got agreements with. So we're going to have to be very careful about how we go about that."

At issue is the best way to manage and resolve the channel conflict arising from the introduction of Internet based Ebusiness.

With the second problem, a pricing dilemma exists (as indicated above), in which Xerox wish to incent customers to buy commodity defined products on-line (as this is cost effective for Xerox), but incenting by price is not feasible, or perhaps not practical. The dilemma is illustrated in the following:

[1, 160, 1999] "I think it's an interesting dilemma, because you don't want to incent by price discounting, although you do - you do and you don't. You do

because you don't, like someone on the Internet, pushing - so you can afford to therefore select a lower price because you're going to have no overheads. However, if you were to sell on a lower price on the Internet than you would to say Lloyds Bank, who you absolutely need Face to Face coverage for, then surely that's not right. Because that says that the local dentist surgery can buy it at a cheaper price than Lloyds Bank - and surely they shouldn't. Lloyds Bank wouldn't be very happy. So, I think price discounting's a bit difficult. I used to be Pricing Manager here and we sort of toyed with this idea of do you or don't you, and I think we came to the conclusion you don't. And you just have fixed price which is like an average price. And, do they [customers] want to go through that? I think you have to rely on that's the way they want to go, and you have to mail them and you have to encourage them to find that way. I don't think you can incent them with any financial object. It'd be dangerous, just to get into, because your price will just get declined in the market so... But we do have customers like Lloyds Bank who probably would like to buy over the Internet, and, because all of their banks, would want to say 'well, you don't need to come and visit every store or every bank'"

The Ebusiness model for larger ISO customers, like Lloyd's Bank, is very different to the GMO model. Participants' views pertaining to the ISO model are presented below.

5.10 Ebusiness in ISO – An Extranet Model

The ISO Ebusiness model seems more clearly defined than that of GMO, and it is an Extranet rather than Internet based model. Extranet based Ebusiness for large customers can be seen as the digital equivalent of TeleCoverage, or Hybrid Fulfilment Selling. However, Extranet based Ebusiness has added benefits for both customers and Xerox, which are described below.

At the time of this research Xerox were beginning to pilot a small number of Extranet sites. Xerox needed to identify:

[3, 48, 1999] "...the right customers – see who we can get a mutually interdependent business plan – so you can have a strategic partnership, and then set up a site that's – takes process out, takes cost out, share the benefits, get sole supplier, get pay back for both parties. So I think we've got concepts..."

Participants were clear as to the logic of Extranet based Ebusiness, but implementation was still at a very embryonic stage. As with TeleCoverage, there is an essential F2F element in the negotiation of an initial contract. The Extranet, like TeleCoverage, then becomes a vehicle to fulfilment. The Extranet forms an exclusive one-to-one electronic link between a customer and Xerox. Again the

logic behind the use of Extranets is based on reducing the cost of sales, but also, and importantly, it is seen as a facilitator of improved relationships between Xerox and large customers, and a builder of customer loyalty. The cost of sales implications of Extranet based Ebusiness are clear:

[13, 32, 1999] "the idea is that you make this the link in our end, say we would link this into our company systems, and then it gets fully integrated, and Extranet fully integrated then starts reducing our SAG costs, sales, admin, and general costs. So you then think about - OK how does this customer, if they place an order on-line, does this automatically go into our order process system without ever touching human hands? And that's the idea – the idea with Ecommerce – is it will then start reducing your admin. costs."

The Extranet is seen as "...a selling tool, and a benefit to sell to the customer in its own right, particularly to the administrator of that" [5, 84, 1999]. Products and pricing are agreed in advance through negotiation with F2F salespeople, but the site will contain other customer specific information also:

[5, 84, 1999] "The Extranet is probably more of a goer... when you do, deal with large organisations like councils, or multi-national organisations. Again you've still gone in and signed the framework contract in the first place, but the repeat buying is on there, and you can then also furnish them with the Extranet is the performance of their machines and all the statistics that you generally put together in a book and go and present to them. There's no reason why you can't put that live on the systems so they, the administrator can go in and say, 'Oh there's [the information]' – again there's a whole cultural thing – the openness between vendor and supplier, between supplier and customer is now much different in terms of the information you will share, or the information they will demand..."

Extranet customers will expect to be able to purchase off the contract supporting the site, but will also expect to "...have information that's key to our business relationship with them" [13, 40, 1999]. Xerox believe that customers will recognise the added value benefits of implementing an Extranet:

[13, 36, 1999] "I think the added value that customers are seeing in using an Extranet model rather than just a web site they can go to and buy the latest product, is that we can - one it's agreed pricing for them already; two it's all the extras like the contract information in there. They were saying to us 'Oh we want to have our service matrix, you know, not just what your performance is like, but how many times we've called you out, for which product this year, last 6 months, what's the fix time?' and all that kind of information... and 'Can you tell us where our machines are because we don't know', and it's like 'Oh God' – so they're asking for all this valuable information, and there's an information area as well as sort of an ordering product catalogue... and we can put in all the key info, bits that they need, it's sort of like a file repository."

The information resource aspect of the Internet and Extranet may have positive implications for customer satisfaction:

[13, 41, 1999] "...I mean, you know, they can have a bulletin board as well where they can post problems and we can give solutions. And you know, also something like a frequently asked question – if they keep getting the same problem coming up and coming up, then we can start – we need someone to be able to look at the bulletin board and to start editing it and saying 'OK, this one's coming up' – and now we can post that in a frequently asked questions area, which you know – the ability to just go in there and think 'Oh, right, that's how you deal with this paper jam', or 'that's wrong with it, it needs new toner' or something – even simple things like that free up time on the phone, can free up customers' time, can lead to more up-time with the machine, and lead to happier people all round really."

Extranet based Ebusiness, rather than being a simple fulfilment channel, is recognised as a facilitator of improved business relationships. The views of customers as to the role of the Extranet link were sought through research and:

[13, 32, 1999] "...quite interestingly they didn't see the Ecommerce model that we've got at the moment, the Extranet model, as replacing their Face to Face salesperson. They saw it as an enhancement of that sales relationship."

The Extranet is seen as an enabler to improved business relationships and a builder of customer loyalty. It is also seen by Xerox as a tool for Intelligent Marketing – for stimulating interest in new products and services, and for capturing individual email addresses to enable one-to-one communication. This Chapter concludes with an extended illustration of how the ISO Extranet model works in practice:

[8, 194-228, 1999] "Giving you an example. I've just set up a contract with Compaq computers, where we've gone in and we're providing a complete solution with staff on the ground, so its run by Facilities Management. We've gone in with our latest digital products, but they have 784 home workers now, Compaq computers, so they're further ahead than we are. We've set up a web site with them so, their web site, and we've got on there the Xerox products, because they only buy through Xerox now. And there's a range on there from big printing colour device, to home work products, so products that print, fax, scan, copy and print - for them to use at home. And they will order off the web site..."

"...what's going to happen is, they look into their Intranet right, they will order through their IT department and say 'I want that product', and then hopefully they're setting up the Compaq link to us, and they'll order that product from within Compaq. They will order it yeah... so I already see that happening with an account. It's a slightly different view on it because it's not remote customers dialling in, I see that as well. But we will start using that more and more. Which cuts down on - because I can't afford to send a salesman to go and talk to these

customers about those little products right. We've got a framework contract, we're the document supplier - here's the pick list. We've got a web, web pages up within Compaq, against the product here's a description, here's the price. And that order initially goes through IT and it'll be passed on via the net to Xerox and we'll fulfil it. So things like that are happening.

[Researcher] "that's a term I've heard as well, people saying that Extranets can be a fulfilment channel, in that you'd send a Face to Face salesperson to set up a contract, and to agree this sort of thing and then that's where the fulfilment comes in, because its..

"...that's right, and because Compaq computers are quite clever and they've got the web, and that it would be daft for the end user to go through the IM department, electronically to say 'I want that', and then for me to send a salesperson in to Compaq to sign a bit of paper with the chap. So we've got to have that link in there to fulfil that. We will also use that for different marketing, we will use their web site, the Xerox-Compaq web site [Extranet] to market different, you know, because its an XBS [Xerox Business Services] site, you know, we're combining on a colour launch to support them on the needs occurring throughout their business. We may market different things, you know central colour, eight side, you know if they want to produce glossy brochures etc etc - so we can market that on the web site as well. They will put in requests for consumables, using web based technology..."

"...we have a range of products and solutions. They are, they can order off there, office based products, and home working type products right. We haven't got on there huge data room print, there will be solutions obviously where we would need to got and talk to them about it. But they can order for instance scanning services, and we just call it software - which is quite a complex solution. But they - if it's on the web page you want scanning services, you want scanning services added to that product you've got there tshh tshh tshh x x - we come and do it. So they've got network scanning put on their products. So this is probably a bit pioneering because we haven't been this far forward with a lot of accounts before. We can, don't forget we've got, in the main headquarters we've only currently got 2 people on site, we've put 2 people in, so we've got people that can help and assist on that site as well, and give guidance. But we want to use the web based product for ordering, and for the simple products it's there. We are not going to go and talk to people on a lot of what Compaq will have put in. Our home work device, which is a copy, print, scan and fax device - 300 quid. I can't afford to go and talk to people about a 300 quid device, so they will order those off yeah. And given there are nearly 800 home workers for Compaq at the moment, that's a big selling opportunity for us."

"I think, I think that is the view at the moment. And I think that is all about technology's going at a hell of a pace, and we're human beings and we're a bit reluctant to change, and I feel comfortable ordering that because it's a low value. But we've got items on that, and people will be able to order items on there that have a capital value of 30,000 quid, so they're not that cheap. I also see it, because we've got central resource within Compaq, and because we've got the ability to provide, I want to use it as a marketing tool as well. So we can, I mean in Reading, in their office in Reading there's 52 senior Business Managers running different parts of their business. I'm trying to get to provide other solutions like,

their bids and tender department spend a fortune each year getting colour brochures printed outside. I want to start capturing that work. So if I can capture people's email addresses we can promote, I can find out who those key people are, and start prompting ideas. You know, it's maybe not selling the solution, but it's prompting ideas, and using it as a tool that way..."

"...stimulating interest, so you will use it generally and it will be generally for small value. But on the reverse of that I think your right because people, but if you can start stimulating like that, and we're using that, we're actually using that in some of our mailing campaigns where we ask them to reply, to come back via the Internet so we've got their address. So there's lots of stimulus being given, I don't think we've sold them, but I think we use it within Compaq as - we will start you know doing some quite clever things on stimulating interest. But I'm looking in Compaq, if you look at the value, the actual value, the potential - got to be careful here, I'm giving you company secrets - I mean I'm looking at doing, I'm looking at doing another million pounds worth of tin, outright sale, you know, without all the maintenance and the bits that you put in after, with Compaq this year. And I would hope - I mean this web site's only been available about 7 days, being set up for me - I would hope this year that will do, half would be too much, a third of that via, at the beginning of this contract, so the first 6 months of that contract we will start doing a third of our business with no interface at all - it'll just be orders coming through. And I'll hope to extend that more and more next year. It's a guess but, you know..."

The following Chapter presents the research findings pertaining to the use of IT in each of the Customer Engagement channels studied.

Chapter 6

IT in Customer Engagement at Xerox

6.1 Introduction

This Chapter presents the findings from interview and documentary evidence about how Xerox use IT in each of the three Customer Engagement channels studied in this research. It is the fourth and last results Chapter in this thesis. Chapter 3 described the process and strategic context in which this research took place. The key process under consideration was shown to be the seven (or ten) stage Selling Process, and the Go To Market strategy was found to constitute three essential themes: Intelligent Coverage, Optimal Channel Mix and Sectorisation of the Sales Force. Xerox's approach to the improvement of F2F Sales Productivity was the subject of Chapter 4. That Chapter showed that Xerox operate a holistic approach to Sales Productivity, and that F2F productivity is now regarded as but one element of this broader goal. The Go To Market elements are designed to deliver improved holistic Sales Productivity, and the Selling Process describes the common structure enabling the effective channel integration and Task Substitution that Go To Market requires.

Xerox's Telebusiness and Ebusiness operations were the subject of Chapter 5. The latter channel is the least developed of those studied in this research, and this is partly because it has received comparatively little investment. In contrast, Telebusiness is a site of intensive investment, and UK Telebusiness operations represent the benchmark model for other Xerox Entities. The role of Telebusiness in delivering Intelligent Coverage and Optimal Channel Mix is integral, and the three 'flavours' of Telebusiness identified in this research are differentiated by their performance or non-performance of the Selling Process composite stages.

In each of the previous results Chapters the use of IT in Customer Engagement channels was alluded to, but not described. Previous Chapters indicated that the application of IT was seen as essential to the improvement of Sales Productivity, and this is indeed the case. This Chapter relates how participants described Xerox's use of IT in the channels of Customer Engagement studied, and in the processes through which work in those channels gets done.

Two IT applications were identified by participants as essential to the productive operation of Customer Engagement operations. Xerox's Market Data Base (MDB) is central to, and essential for, the delivery of the now familiar Go To Market aims. It enables Xerox to operationalise the Intelligent Coverage philosophy, and facilitates Optimal Channel Mix by enabling seamless channel integration. Xerox plan to enhance F2F productivity with the implementation of a new MDB based 'Sales Force Automation' (SFA) initiative. Effective SFA requires the mobilisation (or remote localisation) of the MDB resource.

Xerox participants were unanimous in the view that it is rarely technology *per se* that delivers business benefits. Reaping the potential benefits of IT capability is in most cases contingent upon the effective application of IT to existing processes: "It's a mix of that people, process and technology" [3, 21, 1999]. The productive use of IT often accompanies or requires changes in the behaviour of users, and IT may enable existing processes to be performed in more productive ways. At Xerox, IT facilitates the redesign of business processes, but processes are infrequently eliminated altogether.

The MDB is integral to Xerox's Customer Engagement operations. The following section introduces the MDB, and leads on to a description of its numerous facilities, and how they are applied in practice.

6.2 The Xerox Market Data Base (MDB)

Xerox UK began to develop a data base of customer details in the late 1980s. This data base was compiled by sales people canvassing, and then handing customer information slips to Tele-workers, who would then re-contact the customer to check the slip details. This paper-based data base was costly and of limited utility:

[7, 6, 1999] "So we, typically we would go canvassing and that would hand us slips, give it to the Teleselling person who would then maybe in a week's time ring the person that you had written down on your canvas slip, to build a database. So it was a circular process, it wasn't really adding much more new information and it wasn't an objective view of the market potential, or even the market – it was a limited view of the person you were told was responsible for making decisions about a certain kind of product."

The Xerox data base concept has matured significantly since then. In 1992 the MDB was implemented as an in-house system based on Oracle Client/Server technology. The original MDB (1992) was designed to meet the following criteria [14, p2, 06/98]:

- *To define, capture and maintain the entire marketplace for Xerox UK.*
- *To capture and maintain data on Establishments, Contacts, Xerox and Competitive MIF (Machines In Field).*
- *To accept updates from legacy systems, external lists and Sales and Marketing users.*
- *To maintain the ODP (Office Document Products) Ground Plan for both direct and indirect sales.*
- *To enable the set up and management of local and central mailers.*
- *To provide comprehensive reporting facilities.*

Between 1992 and June 1998 the MDB was further developed in line with business requirements [ibid.]:

- *To incorporate an Early Warning Systems (EWS) to notify sales users of imminent opportunities and threats concerning MIF on their territory.*
- *To extend the capability of external list updates.*
- *To build sophisticated profiling tools to identify potential customers for marketing campaigns.*
- *To capture Decision Making Unit (DMU) Coding and Coverage Contracts.*
- *To incorporate the 30/60/90 day Outlooking process.*
- *To enhance campaign management facilities in terms of tracking progress and measuring results (ROMI), including the implementation of a closed loop Leads Tracking system.*
- *To define and maintain the PSG (Production Systems Group) Ground Plan.*

The UK MDB is, in the opinion of participants, a comparatively advanced Market Management Database, and the UK are regarded as further ahead in terms of Market Management (MM) processes than other Xerox entities. The MDB is now "the second largest business to business database in the UK. British Telecom's being the largest. Because everybody buys copiers and printers" [18, 100, 1999].

The MDB concept was, at inception:

[14, 13, 1999] "...years ahead, I mean he [another participant] was years ahead. He set us up with that in the early 90s, and since then no, not one other operating Entity in Xerox has caught up yet. But they're all going to have to – very quickly, because they've seen what we can do with it. I mean all the others have got customer files, and they may even have a few prospects on them, but what they haven't got is the whole market place laid out. And that is so valuable to have."

The true value of the database is in its complete mapping of the UK market place – with both Xerox customers and non-customers. This will become evident as the MDB applications are described in turn below.

Whereas the UK are understood to be very strong in terms of MM capabilities, other European entities are comparatively advanced in terms of Sales Activity Management (SAM). The relative weakness of Xerox UK in taking and utilising selling in-process measures was identified in Chapter 4, and is re-iterated below:

[18, 132, 1998] "...there's activity tracking, there's some countries that are very good in sales activity tracking. The Germans and the Spanish are very pedantic in the way they get their people to do things. 'Ve have vays and means ov making you do eet' - sort of thing. And they get along and do it. You know the salespeople, they fill out, you know, all the boxes, and in some ways they're doing things that might not be all that accurate, but they do do it. We need to find the right compromise of activity tracking, so we get the right measures to - that enables you then to lay your resource off where you need to. And its very difficult if you can't do that. So at the moment we've got new software coming along hopefully it'll allow us to do that. "

Activity Tracking is seen as an essential element for measuring and then driving Sales Productivity. The Leads Tracking MDB application is designed to improve Selling Process measurement, and this is described below. The MDB will eventually be replaced by a European database called Xcalibur. This system is designed for use throughout Europe, and includes both SAM and MM capabilities. The key objectives informing Xcalibur's design include [14, p2, 09/97]:

Market Management

- Enable distribution capacity – contact growth.
- Support market understanding, analysis and planning.
- Provide consistent database and infrastructure for Xerox Ltd.
- Improve data quality and coverage.

Prospect to Order

- Eliminate process variability – support with consistent process and systems.
- Provide base for productivity tools – configurator, proposals, order entry.
- Provide consistent Xerox Ltd reporting.

Order / Implementation to Collection

- Provide base for seamless interface to install and invoicing.

The Xcalibur database includes superior SAM applications to MDB, but its MM capabilities are perceived inadequate. It is agreed that the UK will take Xcalibur when its MM capabilities are developed to the UK's current standards at least.

[11, 131, 1999] "...the UK has never been hot on, or good at, or found it necessary to have Sales Activity Management. The rest of Europe has always had Sales Activity Management but no Market Management. So they've had a mainframe database driving Sales Activity Management and the drive is to get rid of it. So therefore across Europe they had to develop a new Sales Activity Management database with Market Management as well. That is called Xcalibur, and has been developed in India, and has already come on line in Rome ['Go Live' 04/98]. I believe its going into a few more countries, Switzerland or whatever now, but, the problem is that its Market Management capabilities are far behind our Market Management capabilities - that our thinking is much further ahead of. So we wouldn't want to go over it until the level is up to or certainly supports what we then, we currently have. So we go to the balancing act of when do we jump over to it. Clearly the sooner we can the better because then the costs of development are reduced, but obviously we'll only do it when we believe we're going to get the same. That, then, ultimately Xcalibur, which is a hybrid thing it's a personally it's a personal thing, it's a stopgap until then SAP comes along online. Which is probably where we will afterwards go."

As the above quote suggests, plans exist to implement SAP on a European-wide basis. At the time of this research Xerox had "an army of Price Waterhouse Coopers consultants in Marlow [Xerox European HQ] implementing it for us, because it's European as well for us." More will be said about the possible uses of SAP in Section 6.6, as the views of participants regarding Xerox's future direction for IT in Customer Engagement are presented. In the following sections the various applications of MDB are described, and their role in the delivery of the Go To Market strategic aims is explained.

6.3 MDB Applications

6.3.1 Coverage Contracts

"*These are the Activity Plans for each Salesperson, which show in detail how each Establishment is to be covered to ensure 4 engagements per year – eg visits, telephone calls, mailers or a mixture of these. Plans and actual results are tracked on the MDB*" [14, p1, 1999].

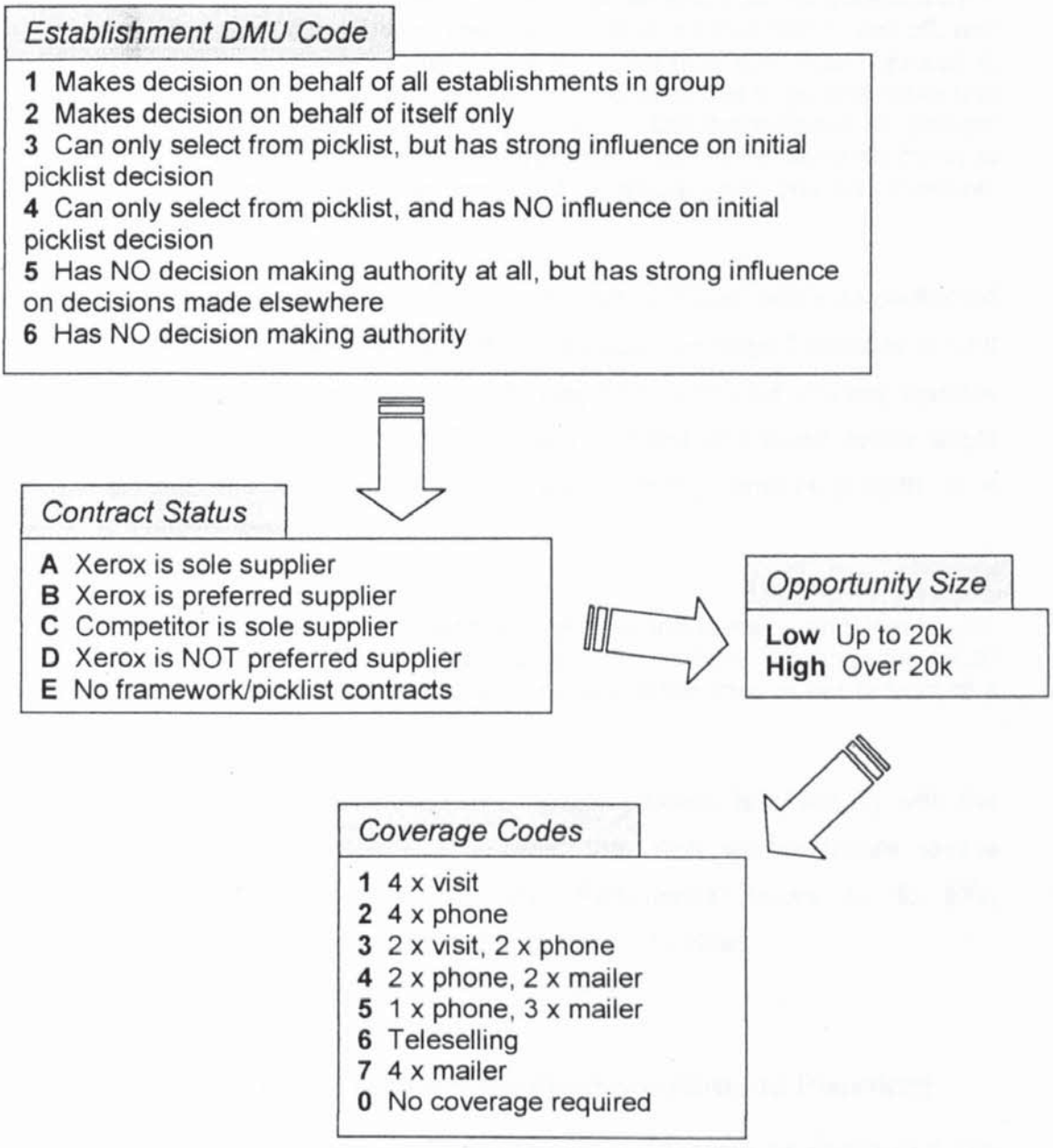
F2F Coverage Contracts were introduced briefly in Chapters 4 and 5, but the role of the MDB in their formulation and measurement was not described. Coverage Contracts represent the blueprints for Intelligent Coverage. Their formulation relies on the accurate coding of the entire MDB – that is, the accurate coding of every establishment in the market place. This coding enables decisions to be made about how best to match Customer Engagement resources against potential market opportunity. Every establishment is coded according to its decision making capability, it contract status, and the size of business opportunity it represents. Following this coding, a final Coverage Code is assigned denoting how that establishment should be covered. The MDB coding scheme is shown in Diagram 6.1 overleaf.

Intelligent Coverage is seen as a process, and the MDB is central to it. The process begins with an assumption that every establishment should be engaged at least four times yearly. Over time, as contact is made and information is added to MDB, coverage mode decisions become more informed, or more 'intelligent'. Intelligent Coverage begins with:

[5, 33, 1999] "...just trying to prescribe a coverage for every single business that exists on anybody's territory hat says, again we started off as a shot gun approach that sprays it everywhere until we can get going and get the information and the data that says you actually tune it down and rifle shot - but we've said, you know, fundamentally we should be speaking to people, an organisation, once a quarter. We've got basically three ways of speaking to that organisation, you know you can visit them, or telephone them, or you can send them a letter. So on the basis that everybody needs four contacts a year, depending on how big the customer is, how important they are, decide whether that's visits, visits, phone calls, phone calls, mailers or whatever depending on what their role is in the organisation. And then we issue, we calendarise that to balance the work load - and then we issue that to the salespeople hard copy every month and say 'here's your list of 20 people that you should visit this month' [Coverage Contract]. So it's prescriptive, and actually trying to drive coverage because - quite fundamentally,

and I'm a big advocate of it, that says – 'coverage drives your business'. The more people you see and the more people you talk to, the more business you're going to get. And what we try and do is to go through a process, which is, do the full coverage on everybody to go and find out intelligence in it to say, 'OK this area of the community - don't seem to get any mileage out on the phone, so let's not waste our time of day with them' -so you actually start to tweak it and manage it down."

Diagram 6.1 – *Database Coding for Intelligent Coverage* [14, p1, 1998]



As described in Chapter 5, the TBC works on the four contacts per year cycle also. The TBC will in many cases take responsibility for the coverage of the smaller opportunities on a territory, or coverage will be shared between the F2F

and Telebusiness channels. Effective Intelligent Coverage absolutely requires the maintenance of customer contact history by both F2F and Telebusiness people, to ensure progressively improved coverage accuracy. The MDB can be seen as a tool for knowledge based selling. It facilitates the process of targeting Customer Engagement resources in an intelligent way, for example:

[18, 136-139 1998] "...hopefully, through updating it, we've got contacts they have, and what they're interests are. If you run a golf day, you say 'well we'll invite all your golfers' – and they say 'well how do we know where all the golfers are?' – but there's that sort of information. The MDB there is a sales tool to sell off, and ideally you know how this customer on there – what they buy, how they buy it, when they want to buy it – and then you lay off your resource to go and make that happen. Similarly you can focus on the non-users – with competitors' kit, you get up all of that, and it's used to, to go after the churn. You know when it's going to happen. You only call people when you need to, otherwise a) you piss them off, and b) you're wasting your own time."

At the time of this research the distribution of Coverage Contracts was performed manually. F2F people would be given their individual Coverage Contracts in hard copy, would mark on them which activities they had performed and any updates to the MDB that were required (results of calls or visits), and these details would be entered into the MDB by 'somebody else' (usually temporary staff). It is recognised that [2, 61, 1999]:

"it's just, it's an archaic process, and it's very cumbersome – and there's no, there's no confidence that the information is going to be there. And then they [F2F people] can only use it when they go back on-line, when they're not in front of a customer, so it's not salesperson friendly."

The Coverage Contract distribution and update process is changing with the introduction of SFA, and there is a belief that SFA will contribute to the maintenance of MDB content accuracy. Participants' views as to SFA development and benefits are contained in section 6.4 below.

6.3.2 Xerox Territory Configurator (Ground Planning)

"Xerox Territory Configurator (XTC) is the system, running on distributed Sun workstations, used by CBUs to create the integrated Ground Plan. The CBU initiates the process by downloading selected geography from MDB to XTC, applying Ground Plan rules and uploading the Ground Planned Establishments back to MDB" [14, p1, 1999].

Ground planning and Coverage Contracts appear to be two sides of the same coin. The Coverage Contract prescribes the F2F person's minimum coverage activity, in terms of which customers should be engaged, and how, for a given month. The Ground Plan delimits the size and structure of an F2F salesperson's territory in total; determines which establishments should be passed over for TBC coverage; and is linked to F2F revenue targeting. The MDB is necessary for accurate Ground Planning:

[2, 43-57, 1999] "...if you don't get your database correct there are a number of things that fall off the back of that. We use our database for Ground Planning – which basically carves up the country into slices, which allows the salespeople to cover what we equate to be a territory. And that territory is supposed to sustain a salesperson – to stretch them basically, but produce profit for us. And part of that model we put together says each of those territories should have, should derive a revenue of $500,000 – otherwise you don't pay for the salesforce etc. So that's a kind of minimum criteria. Once you've decided how much that is you can start to build up how many salespeople you need, and therefore, and therefore are you, do you have under coverage, or over coverage – do you need to expand your coverage?...I do see IT as the foundation of how we build our sales model. If the MDB wasn't there we wouldn't have the ability to ground plan"

Effective Ground Planning is dependent upon accurate MDB coding of both user and non-user establishments. The development of the MDB has facilitated a more 'scientific' approach to Ground Planning and targeting, and from there the equitable comparison of F2F people's work:

[5, 35, 1999] "...once you start understanding who's got the coverage you can actually say to somebody 'you've got 500 accounts on your territory. With this profile of coverage that you've prescribed it's going to take you two years to do it, and you only have a year. So we either need to change the coverage that you do, or your territory's too big'. So we've actually started to get, since we've had the MDB we've actually got a lot more scientific around territorising – how big a territory should be, all the rest of it, and subsequent to that – setting targets, from that subsequent data. Because what salespeople achieve in terms of targets is probably a factor of three things. It's obviously a factor of them and their skills... how many Xerox users they've got on it, because there's a loyalty in there somewhere and you can be sure to churn 75% of your users or whatever – and then how much non-user opportunity they've got. And by using those functions you can actually start to, and I've done it for the last 3 years – is when you're setting targets for people you can actually set fair an equitable targets."

MDB based Ground Planning enables F2F people to "do their job better" and also, the "management data that gives you, that enables you to plan, has improved massively" [ibid.]. The Ground Planning process is facilitated by the addition to

MDB of start-up business details supplied by BT plc. Those lists are fed immediately into the TBC for coverage, because "normally it's the first ones through the door that gets the business" [14, 116, 1999].

6.3.3 Early Warning System (EWS)

"*The Early Warning System collates signals from legacy systems and MDB for each Salesperson, which highlights opportunities and threats within their Territory (eg vulnerable machines, forthcoming lease expiry etc). MDB is the only source for the total picture*" [14, p1, 1999].

The EWS tool is evidently dependent for its effectiveness on accurate and up-to-date system data. It requires accurate information on Xerox MIF, and, perhaps more importantly, competitive MIF. The efficacy of EWS is related directly to Intelligent Coverage of the market, and the capture of information resulting from coverage engagements. The necessity of, and current problems with, the capture and maintenance of accurate market data was a continuously recurrent theme in the research discussions. The EWS application can be seen as a tool for improving both customer satisfaction and customer loyalty:

[6, 33, 1999] "There is a system embedded in there called Early Warning System, which tries to take all the information from the different systems and flag. Actually this customer's had bad service response for the last 3 calls. Go in and give them a stroke, because if you don't they're likely to be seething. So there's some great tools in there, but we haven't fully grasped and managed it on the MDB, and there's still loads of mileage in it."

The EWS could be instrumental also in capturing new business, but again the system depends for its effectiveness on the continuous capture of accurate market data :

[8, 79, 1999] "I was an MDB Champion about 6 years ago actually, it's taken us a long, long time to get MDB anywhere near in a decent useful state... Because salespeople change territory, and you're asking people to get that territory made up with the contact names, with the Xerox machines that feed in. But more importantly, what I'm looking for in MDB is the knowledge of where our competitive items are. So the salesman goes out to JHB, the quick builders down the road, sees a customer and says 'right, well I've got 16 Canon machines, they're on lease until 2001'. It's going, it's bringing that information back and saying 'right, there are 6 Canons, 6 that are at end of lease' – which enables us to know all those, and learning cycles, and make regular calls to keep updating that

customer. What we haven't done very well is get that competitive information and keep it accurate. So that's been a challenge, and if you look at this year when we started with Commercial Accounts, and went into our sectors, Graphics, General, Commercial – I was faced with accounts that were new to the salespeople and new to me as a manager."

It appears that lack of data capture by F2F people is in part due to the short-term pressures of their work, or their short term business outlook:

[8, 95-98, 1999] "And the problem we have is, because people change territories, got to be careful what I say, the business is a 30/60/90 day business, right, we're moving more and more to a solutions company where you could say there is the longer selling cycle. But we still have to drive our business on a 30/60/90 day business, we still have to bring in that short term business as well as having long term. We have been guilty, of having short - I'm trying to think if the word - salespeople have stayed on accounts over a short term. We've been guilty of changing our people too quickly and moving them off territories too quickly. So a salesperson is looking down a 30/60/90 day route, 'I've got to put information into this MDB' - which is quite a big manual task, which is looking for business in the year, 18 months time – 'but I'm not going to be on this account, so I'm not going to do it'. Yes, I'm speaking as a salesperson, so that's probably why we haven't captured enough intelligent data... So they look... you come back with some intelligent information from a customer which might be very good - but it's 16 cans that are landing June next year - comes back here, suddenly there's something which is you know, own account, so we don't get that information. It's capturing that information."

There are clearly cultural elements to the problem of MDB data capture and quality. The SFA initiatives described below involve a redesign of the way F2F people perform the Selling Process. There is a belief (or hope) that these initiatives will lead to more F2F input into the MDB.

The 30/60/90 day Outlook, mentioned above, and described in Chapter 4, is another application of the MDB. The Outlooking application is described again briefly below:

6.3.4 Outlooking and Prospect Management

The MDB Outlooking application is described as follows:

"*This comprises the forecast business and revenue by Salesperson, Team, CBU and Entity for the next 30/60/90 days. It is updated on a monthly cycle*" [14, p1, 1999].

As described above, a Coverage Contract prescribes the Customer Engagement activities to be performed by an individual F2F salesperson on a monthly basis. The 'results' of these contacts, and any others, are then (theoretically) loaded to the MDB. The results of the Customer Engagement activities specified in the Coverage Contract are effectively 'Prospects' – or 'sales in progress'. Prospects are managed and tracked through the 30/60/90 day Outlooking application.

In monthly meetings with their managers, salespeople are required to specify which of their Prospects are deliverable within the 30/60/90 day time scale, and the stage of the Selling Process to which each of those prospects has progressed. The labelling of each prospect by Selling Process stage enables the measurement of salespeople through various ratios. As Chapter 5 also noted, there appears to be no universal in-process measurement of selling activity, and it is interesting in itself that few participants mentioned F2F Prospect Management in relation to the MDB. Prospect Management process compliance is, on a national level, variable at best. There is a suggestion that this is at least partly due to lack of MDB access on the part of F2F people. There is also a view that SFA will improve Prospect Management compliance on the part of F2F salespeople.

The 30/60/90 day Outlook, in combination with the Prospect Management application is used to structure discussions about individual salespeople's performance in monthly one-to-one meetings with Sales Managers. The computerisation of the 30/60/90 day Outlook – its addition as an application on the MDB – may enable business review meetings to be scheduled at appropriate times:

[9, 30, 1999] "..well the technology becomes pretty important in the sense of, when I was a Business Manager I had to do all of this myself mathematically, and we had a manual process - so all of these were all written, so it used to take me 2 or 3 days to just compute this. Now because of the MDB, and the technology, using Excel and different macros etc we can generate all this the day after the Outlooks go in. So the information is available immediately. At team level I, it means that I, before I submit my Outlook, I've got all of that and I can do that analysis. Now, what it also means is that Business Managers can time their individual one to ones in the month with individual salespeople on a better and more timely basis. Because a) they can look at the MDB and the 30/60/90 at any stage during the month and they can do this on an individual salesperson level. Because if you don't have to wait for it all to be put in, it can be updated at any time - so that's where the technology helps."

6.3.5 Campaign Management

"The generation, planning, direction and implementation of targeted Marketing Campaigns based on Media Advertising, TeleMarketing and Direct Mail using Study Groups on the MDB" [14, p1, 1999]

Targeted marketing campaigns now play a larger role in Xerox's Market Engagement activity that ever before, and participants frequently talked about the use of targeted Mailers as an essential element of Xerox's coverage mix. Using Mailers allows Xerox to communicate with more customers and non-customers than is possible with an F2F intensive market coverage strategy. As Diagram 6.1 suggests, the mailer is one of three key modes of Market Engagement employed by Xerox (the others being F2F and Telebusiness). Mailing broadens Xerox's reach to market:

[8, 82, 1999] "...the key is to get the information to the right people – it's mailers. I want to use IT, to make contact with those people that we would probably never ever contact with a direct sales force because we can't cover it... To get those areas and to cover it intelligently, it's intelligent coverage which is what it's all about."

The MDB's role in the production and tracking of effective Mailers is central. It is central in that effective mailing requires the identification of 'Study Groups' (groups of customers or non-customers that are likely to respond to a particular message) to target. Xerox must target mailers with 'the right offer, to the right person, at the right time'. Study Groups are essentially disparate segments of the market, and are defined along the variables of customer interests, establishment profile and market sector - and one establishment can belong simultaneously to more than one Study Group.

Effective mailing is dependent on accurate MDB content. Again, accurate and up to date customer information is dependent on regular MDB input from both F2F and TBC people. However, specific campaigns regularly require the addition of new lists to the MDB – in order to properly define a particular study group. Xerox regularly purchase up to date customer lists from external sources:

[14, 177, 1999] "...we started with that [BT Lists], and since then we update it from just about everywhere. Any lists we get, specialist lists. We load it regularly

with sort of IT lists, because they always need updating. We're always very interested in the IT environments, and anything we need for specific campaigns."

The process of Study Group definition, in this case for invitations to an exhibition, is illustrated below:

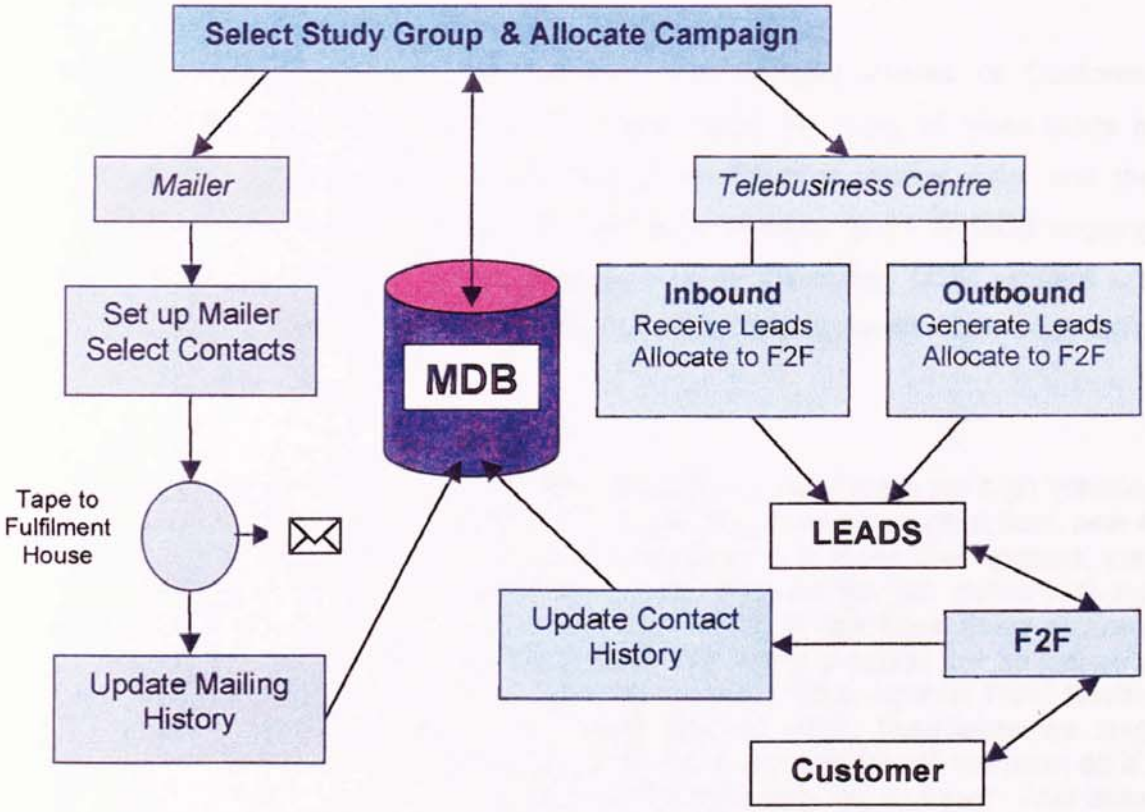
[14, 169, 1999] "...we also have our own exhibitions, each one of our organisational units tends to run its own exhibitions, and I know that because we have to run the campaigns to find the people who want to come – to send out the invitations. So we search the database: 'give me all the solicitors', 'give me all the printshops', give me all the whoever they're targeting the exhibition at. And we go back to them and say 'well we found 13,000' and they say 'well there's at least 30,000'. So we have to go and buy a list from someone, and load it onto the database, and go back to them and say 'right, we've got 30,000 now, is that good enough?' – they say 'yes, OK, send out the invitations'. But there's a lot of specialist stuff that goes on right now, and I think that is going to be much more influential than feet on the street people in terms of hitting a large number of people at once."

Mailer campaigns are designed, in the first instance, to generate new leads. Mailers generate either Inbound leads from Study Group recipients, or are followed up by the TBC with Outbound calls. The former, as the reader will recall from Chapter 5, is similar to the TeleSales strand of Telebusiness operated by Xerox at the time of this research. The future state for Xerox is that these inbound leads will be fulfilled entirely though the TeleSales channel. However, at the time of this research, TeleSales was in its infancy, and inbound leads were still passed over to the F2F sales force. Outbound calls following Mailer campaigns, again as described initially in Chapter 5, denotes the process of Campaign TeleMarketing. In both cases then – with inbound or outbound follow-up – leads were passed from the TBC to the F2F sales force to progress. The Campaign Management process is shown in the diagram overleaf.

The generation of quality leads is one tangible result of accurate MDB use:

[7, 78, 1999] "So the generation of quality leads is one tangible benefit of good technology. So, again, advertising, as I suppose through understanding, through the database, understanding our market better we are able to target the audiences – obviously we use agencies to produce the ads, but the database supports our understanding, you know, of who to target."

Diagram 6.2 – *The Campaign Management Process* [adapted from 14, p3, 1999].



As described above, leads generated from mailer campaigns are usually handed over to the F2F sales force. However, because of the F2F salesforce's unwillingness or inability to update the MDB regarding those leads' progress, it appears that campaign generated leads will in future, in some cases, be handled from first contact to closure by the TBC (via TeleCoverage):

[2, 49, 1999] "If you look at something that's just happened that that I pushed to happen. The lead process, where our lead comes into us or we derive the lead from a marketing campaign - that used to be distributed out via the MDB contacts, contact names, to the [F2F] sales force. And then we used to have to try and chase them for the response from the lead. So at any one time we had about 10% responses in terms of knowing exactly what had happened to them. Which doesn't allow you to plan. So we've changed it so that now all leads go straight into the Telebusiness Centre, and stay in the Telebusiness Centre, and they're worked end-to-end by the Telebusiness Centre. And all of a sudden we found that, one, we're having successes, we have 100% feedback on all of our leads so we can ascertain whether our programmes are working. [Two] The volume of leads has gone up. Now I don't know why. I have no reason to put it down to the fact that we've moved in there, it couldn't possibly be, because its remote from what's going on. All I can think of, all I can think is that there was so much noise in the system, if you like, that the leads were going all over the place, and they were never getting to the right people. But now, we started off with just one person doing it - within 2 weeks we had 4 people dedicated to just answering leads.

Which have got to be the best kind of sales contacts, that you can make. Because they're people that are interested, rather than you chasing people that aren't, that don't believe they have a requirement."

Mailers are also used as one of the three primary modes of Customer Engagement available to F2F sales people. Again the utility of these leads is contingent on the continuous and accurate collection of market data, and the addition of this data to the MDB. Accuracy is paramount, and F2F MDB ongoing data feeds are essential. The consequences of inaccurate MDB content are inaccurate, unintelligent and low quality Customer Engagements, as the following quotation suggests.

[8, 174-190, 1999] "We have in Rover cars 500 copiers. Forget the high volume, forget the laser printers. 500 copiers. We're just about to upgrade that float, new 4 year contract right. Every time we put a new machine in there, that updates, that feeds through to the MDB. So that means that you've got delivery forms [Administrative Data Form], you've got John Smith in the Buck Shop at Land Rover, Buck Shop is where they make seats - he needs a copier, but he just gets that. He's not a decision maker, it could be the paint shop, right, in Land Rover. But a soon as we feed that in, that feeds into our MDB. Then when we start mailing - I find, and this is where I go on about 'you might as well not even do it', suddenly we're doing a mailer and there's 500 mailers going to Rover. That does happen. So at the moment our database is, we do do mailers, but they're not clean enough and they're not intelligent enough... Because we do send mailers out at the moment, thousands of them, that probably go straight in the bin because they're not targeted. We are getting better. But I stopped, I stopped 500 mailers going to Land Rover, Rover last month."

The Intelligent Coverage sales philosophy is relatively new to Xerox, and it is evident that coverage intelligence will take time to develop. But the concept is clear. MDB inaccuracy, and lack of data capture appear to be a key hindrance to its development.

"...so you go and meet a new guy in Sales and Marketing or wherever and say 'morning' - he's Jim Baker -, 'but you know John Cofer who's Director of Marketing, you know I work for him - so if you've got any new ideas give it to me, and you know, I can...' - so when you're in the car you feed that through to MDB, maybe we can target some mail. That information is not captured at the moment.... We're not intelligent enough on, we put, we can feed more people in, but that's up to the salesperson to a certain extent, and the technology's not there to feed it in easily. So, in Rover Group we've got the main people - but who are good IT Support people that should be mailed on new products when we bring out or new solutions software? Who in Sales and Marketing, he's not a decision maker but may have, you know, influence - if we've got something on one-to-one marketing, got some good stuff on that, we should let them know. That's the information that we haven't got in the MDB - we can't target now and do it

properly. Because some of them go in and they meet these people but it doesn't get fed in."

Yet again, the recent SFA initiatives may go some way to redressing the limitations evident in the above.

6.3.6 X-Track

"*Closed loop Leads Tracking module which tracks every Lead (Inbound and Outbound) from source to result on MDB. Leads are entered by the Telebusiness Centre and distributed to the salesperson by Leads Champion in each CBU. Up to date Leads status can be checked at any time on MDB*" [14, p1, 1999].

Leads generated from campaigns – from inbound or outbound calls – are tracked from creation to conclusion using the X-Track module. Every lead is categorised into one of the Selling Process stages, and this enables improved measurement of F2F activity. It appears that there is little confidence that the F2F salespeople will voluntarily and regularly code their leads on the MDB. Lack of process compliance in leads tracking is a problem Xerox were aware of and targeting at the time of this research. The leads tracking process, and its implications for measurement, are described below. It is clear that the accurate measurement of campaign effectiveness (ROMI) requires feedback on lead progression. Xerox need to be able to measure the revenue resulting from particular campaigns, and lead tracking enables this.

[14, 108, 1999] "well there is a move to get everybody to do this... we introduced a leads tracking system on it, and we insist that all our leads, all the leads are categorised into one of these [the Selling Process stages]. (That's now?) Yes, that's now. If you look at how we keep the salesforce on track, I produce a monthly report, which gives the business metrics. This is a snapshot of a campaign. So this is a digital copier, direct mail campaign. And what this tells you - that tells you, that's a snapshot of, how many leads have we got in each of the geographic areas, this is last years. How many have we got in progress, in other words in one of these things here [Selling Process stages]. Now in zero, in one, two, three. How many have we lost, how many did we win, and how much revenue we're getting. So we do this, there are a number of campaigns running. Then we do a snap shot of (end tape) - how many we've got in progress, which is in one of these. How many we've got over 3 months old with no feedback, and how many over 6 months old. So at this point you go and, you say 'look you've got all these leads with no feedback, what've you done with them? If you don't tell us what's happening with these leads we can't know if they're any good or not'. Because quite often what happens is they'll go out and they'll go and get a deal

with one of these. But they won't tell anybody, because it offends their level of self esteem to think that someone else had to go and give them a lead on their territory. It's they, 'Oh I knew about that one, you know, I didn't need that lead, I knew about that'. But, so you can then track back and say 'well if you knew about it, why wasn't on your last months Outlook? Because it wasn't'.

"So there are ways of, ways of measuring activity. This is one of the best we've had, because it forces them to say where they are in a cycle. So you look at something like the Southern and 'Oh God you're doing well, you know you've got twelve hundred, more than twelve hundred leads, still in progress - there's a lot of money there isn't there'. Right, well are they really still in progress, or is it tnat they've stopped telling you about them?"

The inaccuracies of lead tracking have led some managers to insist that all campaign generated leads are handled end-to-end by the TBC (as described in Section 6.3.5 above). All work undertaken by the TBC is linked directly to the MDB through a Contact Management module.

6.3.7 Contact Management

The MDB Contact Management or Contact Calendar facility enables all contacts with customers to be logged, and account history to be viewed. Both the TBC and F2F people log contacts with customers, and this should enable seamless Hybrid Selling, TeleMarketing and TeleCoverage. Any person with responsibility for an account can view and update contact information: the results of customer engagements, the plans for the account, the stage in the Selling Process to which any sale has to date been progressed:

[1, 9, 1999] "although it's a marketing database it's also a bit bigger than that because it also manages all our leads. It allows you to update contacts on-line, so each of our customers is called an establishment and has an establishment ID, which is basically like an account number. And they can go in on that account number whilst they're on the phone to the customer, or when they come back from a visit to a customer, and update it with notes on how the appointment went, what the appointment was trying to do, what's the next steps. I mean any of us can go in and have a look at that establishment and see where we are with the account."

In theory at least. Whereas there is confidence that TBC contact with customers is logged and updates are made, there is no such confidence that F2F people will update with any regularity. "All work that's carried out in the Telebusiness Centre is linked to one central Market Management database, which is the MDB" [11, 72, 1999]. For sales that are managed end-to-end through the TBC [ibid.]:

"It's a closed loop process to feedback... All working off the database, all data is going back and adding value to the database all the time."

Whilst in contact with customers TBC personnel work through the MDB, and contact information is live. The same, currently, can not be said of the F2F sales people. In part this is because they have not historically enjoyed the IT capability to do so. This lack of IT capability is redressed through the SFA initiatives described in Section 6.4 below.

The Contact Management and Leads Tracking applications are used intensively within the TBC. During this research Xerox were in the process of implementing new technologies for use in Telebusiness. As stated above, MDB – whilst in transition – is essentially a MM database rather than a SAM database. MDB's probable successor, Xcalibur, is both. There is an expectation that the introduction of Xcalibur will remedy some of the current and recognised weaknesses in F2F SAM. However, as described below, Xerox's F2F SAM weaknesses are only in part due to inadequate IT capability. It seems that lack of process standardisation or compliance in the work of F2F people contributes at least equally to the problem.

Weaknesses in SAM are being addressed rapidly in the TBC. It appears that in the TBC it is not process standardisation or compliance that limits effective SAM, but lack of effective technology:

[11, 76, 1999] "Now we've had a hole in our technology for quite a while here. In-as-much that people have worked on the database, updating data onto the database, but the database is not an activity management database, it's a market management database. So we've had to have controls in place to understand activity levels that we're carrying out so that we can manage by fact, and we've had to do that originally on paper and then add them into spreadsheets and Access databases and add it all together."

As Chapter 5 noted, Xerox centralised TBC operations to improve process consistency and conformity (and to reduce cost), and the approach taken to TBC productivity is to proceduralise work, to apply technology, and to then 'measure the hell out of it'. There is a view within Xerox, and this view is further illustrated in Section 6.4 below, that the effective and productive application of IT is contingent on the prior definition and understanding of work processes. Telebusiness work is

'100% process' and, as such, this work is amenable to the vigorous application of technology:

[11, 134, 1999] "Technology also only really works when you have large volumes of similar concurrent business. It doesn't work, it doesn't work very well when you are dealing with a diverse, you know, unorganised or very different disparate process. So, in Telebusiness you're doing very much the same process day in day out, it works very well. The sales force, certain parts of it is the same day in day out, though a lot of it is very very different day in day out."

This research found the TBC to be undergoing rapid change. Parts of the site itself, when the researcher visited, were still under construction. The UK TBC model will be replicated in other Xerox entities, but the UK model is not yet complete. The uses of IT by the TBC were difficult to precisely define, but the direction is evidently towards more sophisticated and intensive IT application, and more rigorous and frequent measurement of activity.

[11, 74, 1999] "We're in a very exciting phase of development at the moment. Where we're now, we've now implemented Computer Telephony Integration - where we have the database linked to the telephone delivering back statistics on that individual person. So we can now monitor by agent, by campaign, by week, by any way you wish to including your inside leg. What's happening to the activity on either a campaign, a team, an establishment, whatever, by just purely data mining, through the new system that we have, which utilises a predictive dialler - which is driving increased productivity because basically what happens is we create the target list and instead of just expecting somebody to stand there and dial and wait for the tones to be rung and then find that its engaged or whatever, a dialler does that all for us, and it only delivers live calls to the people that are available to take those calls."

The benefits, in terms of Telebusiness productivity, that are resulting from the application of IT are already being reaped:

[15, 70-76, 1999] "...we're getting, you know, compared with what we used to, we're now getting call rates 100, over 100% higher than we used to, using technology... it's things like Auto Dial, I mean, we're using dialling now so when the operator, on TeleMarketing, we use Power Dialling so as soon as you put the phone down the machine will automatically dial the next number. You can't just sit there looking out of the window thinking 'I'll have a fag in a minute before I do the next one I come to' - whatever you decide, 10, 15, 20, seconds. And we now have the capability, technically, it can be predictive - we don't use it at the moment, but it can actually dial ahead of you, its called Predictive Dialling. It can cut out, the computer will be dialling and if there's a busy signal, or a fax number, or something like that, you know a mistake, it discards those until it hears a human voice and then switches the human voice to an operator. And that can get massive productivity gains, because now you're not getting busy signals out of action or fax tones. This is technology in a fairly basic way, but it is, it can be

applied much easier to a telephone environment because, to the sales person, you know, it'd be nice if a salesperson could not go to customers if they're not there to see them, but the telephone you can really control very heavily the flow through that person, and get a very very high contact rate per day."

Interestingly, it appears that for at least some forms of Telebusiness, Xerox are moving away from rigid scripting:

[11, 78, 1999] "we have largely gone away from scripting. The reason being that it's very easy to have a standard conversation on a script. But when you're having a business conversation, when you're talking to a Managing Director of a company about what their business strategy is, you can't script that very well because he will take you down all sorts of tangents... So what we do is structure it, and we give them skills to, to assist them, and we put into the structure all the standard sort of objection handling problems and everything like that. So they've got a lot of help on screen, but they're not actually forced to work in a struct... in a standard way. They work in a structured way. So, saying that though, we're basically giving them a work flow to work through but we're not giving them the words to say it - because everybody says it in different ways, and I'm sure you've been on the receiving end of somebody from British Telecom ringing you up and reading through a script, and it's very boring, and it's very obvious, and you switch off from it, and, you know, we, we, particularly in TeleMarketing, we have to make sure that those people can have sensible conversations with people that have large buying influence."

From the above it is clear that the MDB is central to Xerox's drive towards the Intelligent Coverage sales philosophy. MDB is integral to the effectiveness of Xerox's Customer Engagement operations. Accurate capture and maintenance of customer information is imperative in contacting "...the right person, with the right message, which means they're in the right segment – so you're having the right conversation with them, at the right time – so that's when they're going to be interested, and its relevant to them" [18, 238, 1999]." Participants were clear that the Intelligent Coverage philosophy is not yet fully realised. 'Shot gun' coverage is well underway, but 'rifle shot' coverage will take time. The use and development of the MDB is a fundamental enabler to Intelligent Coverage.

[7, 87, 1999] "I think, our persistence in using the database, and how it's woven into the fabric of what we do is an indication of how important IT is to us. Yes IT does enable us to do things, but its more than that. It's more than just 'Oh, we'll just bolt on some IT expertise and do that'. IT's what runs throughout, it's in the heart of the - if Market Understanding's there, Channel Optimisation, Segmentation - the next phase is here. We understand that this is, you know, down to Intelligent Coverage, the database helps us to understand the market, it helps us segment the market, it helps us to deploy our resources efficiently and to optimise our channels. Because we know now, you know IT comes back in again, you know, you use the database to drive out whatever measures you deem to be relevant and important and then keep on improving it, and keep that moving so

IT's an absolutely essential part of what we do. It may have started as, 'Yes we're going to do some Mailers, yes we're going to make some phone calls, yes we can do some advertising', but IT's very much a part of everything that we do. So coverage, as Coverage Manager when I, even when I started coverage meant Face to Face, coverage now means, all these people out here are Coverage Managers. They're all talking coverage, you've got a whole mosaic of engagement methods, when you're talking about the customer - whereas before it was Face to Face... Now it's a far more dynamic interrelation between us and the customer. You know that's the way I see it and that's the way the Intelligent Coverage model was built up, and IT's there, there's deliberate Intelligent Coverage - and it isn't just Face to Face it's everything – any, every communication we have with our customers."

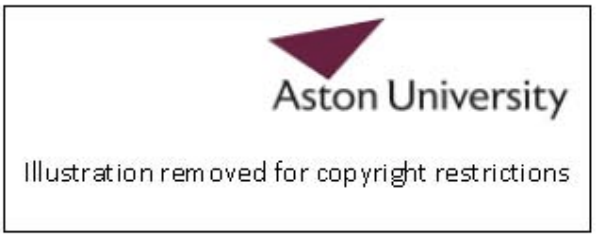
MDB coding and Ground Planning involves the segmentation of the market into DMUs (Decision Making Units), Xerox or Competitive sites, and high or low revenue opportunities. This segmentation allows Xerox resources to be deployed cost effectively. Coverage Contracts are derived from MDB analysis, and represent monthly prescriptions for F2F Intelligent Coverage. MDB analysis enables the definition of Study Groups to target with tailored communications. The EWS facilitates improved customer satisfaction and loyalty, and enables the targeting of competitive MIF (new business). Each of the above MDB applications, used well, contribute to the ongoing realisation of the Intelligent Coverage philosophy.

The Prospect Management and Leads Tracking applications enable improved measurement and management of the Selling Process. These applications and shared access (F2F & TBC) to the Contact Management facility enable effective and seamless Channel Integration. The MDB is fundamental to the holistic management of Xerox's Customer Engagement operations. Diagram 6.3 overleaf summarises the MDB applications used by Xerox at the time of this research.

Throughout the above descriptions of MDB applications, two prominent themes recur. The first is that the MDB's utility is directly dependent upon the quality of the data it contains. Quality data is data that is accurate and up-to-date. The maintenance of an accurate database is "every customer company's biggest problem" [1, 196, 1999]. Database content quality can be linked to Customer Engagement productivity through the frequency with which customer calls are judged to be effective – Effective coverage volume is contingent with MDB content quality. Effective calls begin with contacting the correct customer contact and:

[1, 196, 1999] "..the more customers you'll be able to get hold of with effective calls, we call them, as opposed to ineffective – and it's like, even if you give things to the Telebusiness Centre, they can make, or make so many ineffective calls normally because they don't have the right contact. So the more data you have, the more customers you'll get hold of, the more business you'll generate."

Diagram 6.3 – *MDB Scope* [from 7, p26, 1999]

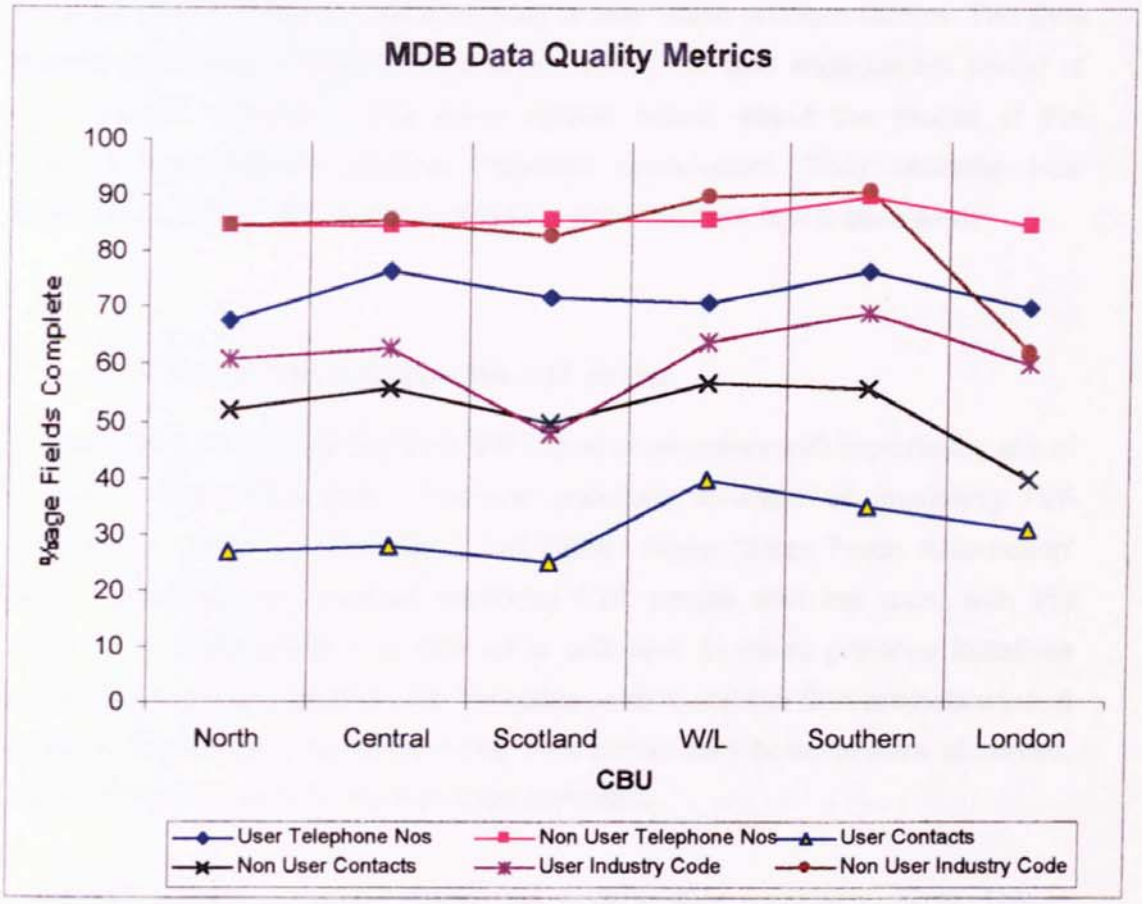


The maintenance of data quality requires continuous updates, because data quality degrades rapidly over time:

[18, 110, 1999] "it's very difficult to maintain because data degrades very rapidly. You think of somebody in a job, and in a building like this, 10, 15% of people change their job every year. We've got people moving off to another site – Marlow, in the next year. Now that's happening in businesses all the time. Some research by BT showed that if you take a combination of company name, and one person working there – who's your key contact – then data will degrade in the area of 30-35% per annum – across your whole database. Because something of that will change. So if you've got something more complex than that, which we have, keeping it up to date can be very, very difficult."

MDB data quality is assessed monthly. The base measure is that one hundred per cent of establishments on the MDB should have at least a contact name and telephone number. The data quality metrics from October 1998 are shown in Diagram 6.4 below, and it is evident that ample scope for quality improvement exists.

Diagram 6.4 – *MDB Data Quality Metrics (October 1998)* [14, p10, 10/98]



MDB content quality was an issue raised time and again by participants throughout the research. The MDB applications described above feature closed loop up-date processes: if process compliance occurs, continuous updating of the MDB will result – leading to incremental improvement in MDB content quality. The evidence from this research suggests that MDB updating facilities are employed consistently in the Telebusiness environment, but less so in the F2F environment. This is the second recurrent theme of the MDB descriptions above: lack of MDB usage by the F2F salesforce.

Telebusiness work is intensively proceduralised, and all TBC based work is completed through a live interface with the MDB - MDB updates are continuous and routinised. However, and as indicated previously, F2F work tends to be less proceduralised, and F2F access to the MDB has in the past been limited. Lack of process compliance, and lack of MDB access are two significant factors

contributing to the lack of MDB updates by the F2F sales force (and hence MDB content quality problems). Sales Force Automation (SFA), the subject of the following section, may provide a remedy to both these problem factors. The SFA initiative described in these pages began during the field engagement period of this research. Therefore, the views related below, about the results of the initiative, lean heavily towards 'informed speculation'. They describe how participants *expect* SFA implementation to work, and not how it *does* work.

6.4 Sales Force Automation at Xerox

In 1999 F2F people were supplied with Lap top computers with the primary aim of improving their productivity. Previous initiatives directed at improving F2F productivity through IT application had failed. These 'Sales Force Automation' (SFA) initiatives also involved supplying F2F people with lap tops, with the concurrent implementation of new sales software. In these previous initiatives new technology was 'grafted onto' the sales people, and the SFA projects were, it appears, forced upon the salespeople. Few productivity benefits were observed, resistance arose, and the projects were cancelled:

[14, 20-23, 1999]. "...and we've now had several sales automation pilots. This is mainly sort of lap tops in the sales force. And to be frank we haven't got a bankable benefit out of any of them. We've, I think we've got fairly good reasons for that. I think each time we've done it we've been trying to push a new system. Now we've always said to our to our leaders - we report to a European headquarters and to the States - and we've always said to them, 'well we don't want a new system, we've got a system which perfectly suits us', 'Oh, no, no, no - you must do this, you must do this, you must do this'. So each time we've tried there's been some other new systems that's going to solve world hunger coming in. And we've had so much trouble with it that it gets in the way of everything else. So we haven't until very recently had the ability to go in to do a Sales Force Automation pilot, just using our existing systems, which is what we want to do."

Whereas previous SFA initiatives involved the development of new systems, the current project enables and requires F2F people to use the existing Market Data Base (MDB) – particularly the Coverage Contract, Contact Management and Leads Tracking applications described previously. Also, and with the benefit of hindsight, it seems that previous initiatives did not require any real change in the way that F2F people go about their work – the current initiative does. It is not simply an 'automation' of existing work processes, it includes meaningful changes in the ways in which stages of the Selling Process are carried out.

[1, 199, 1999] "Has it changed – the selling steps? No, because they'll always stay the same, we just might do them in a different way. The actual step of you need to identify what the customer requirements are [Stage 4: Identify Customer Requirements & Turn into Specifications] {Participant's colleague interrupts}, erm, so yes, I don't think the actual selling steps have changed, the difference is the way they actually do the selling steps."

The original Selling Process will remain, but it is envisaged that F2F people will do new and different things during each stage:

[14, 23, 1999] "Oh yes we're talking about sales people actually doing things that they don't do now. You know, using technology."

Each of the SFA initiatives undertaken by Xerox has sought to address a number of issues related to the operation of the Selling Process, these include [14, p4, 1999]:

❶ *Sales Productivity is too low at 2 sales calls per day.*

❷ *Sales activity is focussed on existing Customers – too little genuinely new business.*

❸ *Sales culture encourages independence, which results in lack of process compliance.*

The current SFA initiative began with a thirty day pilot (originally three months, but superseded by full roll-out to all F2F people) run by one Public Sector sales team. That team's winning pilot proposal / bid document outlined how F2F productivity was expected to increase through the use of laptop computers. The proposal summarised the sales team's objectives, in terms of productivity improvement as follows:

Account Management

Improved customer record keeping, communications and information gathering

Sales Activity Management

Increased number of F2F and prospecting calls

Coverage Contracts

Remote Access to automated Coverage Contract files

Territory Planning

Diary management, autoscheduling for appointment setting through TBC, remote access to database.

The suggested measures for judging the success of the pilot are summarised below in Table 6.1.

Table 6.1 – *SFA Productivity Measures*

Improvement Area	Measures	Anticipated Results
Coverage Contract Measures	Improved Coverage	*25% Increase in Coverage*
Number of Customer Contacts	Improved Productivity	*25% Increase in F2F Activity*
Number of New Contacts/MIF added to MDB	Improved Data Quality	*50% Increase in MDB Data Quality*
Number of Units Sold per Salesperson	Improved Sales/Salesperson ratio	*50% Increase in Service Prospect levels.*

The conclusion to the proposal document recognised that the precise effects of SFA on F2F productivity are difficult to quantify in advance. However, the general sources of productivity improvements were identified [17, p10, 1999]:

"In conclusion while it is difficult to accurately anticipate the productivity advantages that laptops would deliver, we believe that by reducing the amount of windshield time to the minimum and making the remote salesperson more able to communicate effectively with their customer the business results will improve."

The following sections present interview and documentary evidence relating to each of the specific productivity improvement areas listed above.

6.4.1 SFA and Account Management

The SFA proposal document envisages the following benefits of F2F people possessing mobile personal computers:

- *Ability to update Account Information on-line*
- *Query Handling from the customer's site directly into Xerox by email*
- *Improved method of Customer Communication by email.*

The updating of Account Information onto the MDB has in the past been problematic. Whilst there has been increased customer contact via the telephone (see Chapter 4), MDB updates following these engagements have been inconsistent. Updates following field visits have been problematic also. This has in part been due to lack of access to the MDB, whilst mobile or otherwise.

[1, 46, 1999] "...I've been with the company for 11 years, and the sales force has changed dramatically. Because I would have said before I came here, I've never been in Sales myself, I've always worked in head office roles - dealing with salespeople, you know, you'd never get them to do it. Because the push back was, was 'well there's no point in asking sales to do that because they won't update it, they won't do that.' Well having come here [a Sales office] I think that's because we weren't really giving them the tools to do it. 2 PCs between 11, no wonder they weren't updating things on-line, because would you if you had to queue behind half your team mates to get on a PC – so it didn't happen. Since we've had them [laptops] we knew that was – we're now getting into this, the updating ourselves."

The lack of access to the MDB is certainly a significant factor in the maintenance of MDB data quality. Mobile personal computing facilities enable the F2F force to interrogate and update the MDB, whether in the office, or mobile.

The capture and centralised storage (in MDB) of Account Information may remedy a current process breakage identified by participants to this research. The lack of routinised capture and maintenance of customer information can lead to the disruption of both customer relationships and particular sales cycles. It appears that no commonly employed Account Management practices exist. Evidence suggests that in many cases Individual F2F people develop idiosyncratic Account Management methods (their own databases and records stored on PCs at home), and this is partly due to a lack of easy access to Xerox tools (the MDB). If SFA leads to continuous MDB input on the part of F2F people, and if the MDB becomes the Account Management tool of choice, then the customer information that is currently lost when F2F people change roles may instead be retained.

[2, 61-65, 1999] "...the process breaks when you change account manager at the moment, because all the knowledge you've accumulated on that customer, which is in a paper format - or email or whatever - goes. There is no centralised way of

holding that information. Xerox has no set account structure. Everybody, every salesperson you go to will use a different way of recording the information. So again there's a process breakage there in that each salesperson will be gathering the data which only they think is relevant. Rather than the data that you need as an organisation to see whether or not people are scanning documents in yet, whether or not they use Xerox as a printer supplier or is it just copiers, or not at all. That data is not captured at the moment. So it's a massive weak link in what we currently do."

"So, what I see, the first thing I see that SFA will do is it will provide people with a hist.. an account history. So when you change a salesperson, which we do with monotonous regularity - we say we want to have maybe 10, 15% changes at the end of every year - we had over 50% changes this year. So they, the sales force spent the first 2, 3 months going round their customers saying 'Hi, I'm your new Account Manager, what do you do? What are your issues?' They can't view what was there before and they don't trust it. So by having electronic, an electronic database which you can update on a real time basis or after appointments basis, for me provides us with a repository for the data we collect from the customer - which takes away the piss off factor of people going back to them asking the same questions. So you should be able to move a sale on further, or progress an account relationship a lot further if you computerise the database that you hold on the customer."

The account management and planning benefits of SFA obviously depend on sales people, having been supplied with laptops, then using them in the 'correct' ways. There exists great variation of opinions as to whether F2F people will a) make use of their laptops at all, and b) use them in the ways that management envisage. The first debate is about the readiness of F2F people to accept and use new technology in general. The second is about whether F2F people are willing or can motivated to work consistently along process lines. Regarding the readiness of F2F people to adopt new technologies, the opinions expressed to the researcher vary from the reserved:

[8, 279 & 119, 1999] "well, you known they're deploying everybody with laptops this year, [another participant's] running the pilot. I really believe we can get bottom line, but it ain't going to happen just like that. Because the day after they'll be in the boots of cars, they'll be – salespeople are like that, they're lazy buggers. They are. And it's anything new. People are very resilient to change... You know, there are people that have been with us selling photocopiers that are not PC literate... when we give them laptops, will some of them be left in the desk? Yeah, we've got to face all that, and it's a long journey."

To the entirely optimistic:

[1, 77, 1999] "well, to be honest, those people who say it won't work I think are thinking very much of the older Xerox. When you've got a team of people who are under the age of 30, who've grown up with technology being as it is, there isn't

really a problem, and it's not alien to them. In fact they're crying out to have technology, because they're embarrassed not to have it. It's the other way around... there's not been any 'Oh I don't want to have to do that' – it's 'great, now I can get on a bit quicker."

And:

[2, 89, 1999] "Oh, there's a massive want on the part of the salesforce for them to do it, and it's a major contributing factor to employee dissatisfaction that they haven't done it yet."

There will be early adopters, and others who remain less enthusiastic. Opinions also vary as to whether salespeople will begin to work in a more process-compliant manner. One of the reasons for embarking on SFA initiatives listed above was that the '*Sales culture encourages independence, which results in lack of process compliance.*' SFA initiatives are introduced in the first instance to improve sales force productivity. Improving productivity involves the close measurement and management of activity. Xerox's approach to productivity improvements in general involves the proceduralisation of, application of technology to, and then measurement of, work. It is clear that the first requirement for productivity improvement is the existence of a disciplined process. At issue is whether the application of IT in an area of work characterised by process variability will lead to a reduction in that variability. Will the application of IT to the work of F2F people (to the Selling Process as performed by F2F people) improve their process compliance? The debate is summarised in the following quote:

[15, 25&64, 1999] "The more you have a disciplined process the more you can apply technology. The danger is trying to apply technology where you haven't got the disciplined process, because then it - what does IT do? Because technology is there, it's not infinitely clever. Now the, you never know what came first, the chicken or the egg. Most sales people when you ask them, they say – 'yes but if you gave me a sales laptop with all these processes automated I would do it'. 'Well, you don't do it when its on paper or pencil, so why would you do it if I gave you the technology?' Now, I don't know, if you made it easy for them to do it would they do it? Is it cultural? Somewhere you've got to get in, you need both, you can't apply technology without process. There are certain things you can do. The problem with the sales force is that they don't want the, they want benefits for them, which is the information, the simplicity, but what comes with IT in terms of sales force productivity is some very close measuring of what they're doing. Right, if they have this system they have to show number of calls per day - we can work out number of calls per order. So we, we can say 'wait a minute - you're taking 50 calls to make an order, and this person is taking 20 - what the hell are you doing?' That side of it they don't want. Or, 'your Prospect to, your Suspect to Prospect to conversion ratio is 20% and this guy is, everybody else is running at 50% - how come?' You know, how come, you've got to... so driving sales productivity, or

driving any part of the business. Take it away from salespeople, the whole way to run a business is to process it - that's lay down how work gets done, in process measures, end result, closed loop measurement of it all, you know... Now the sales force don't really want to be managed that tightly, and by definition they're out on the road. However, they can have automatic needs analysers, automatic proposal generators, automatic order entry, configurators – so there's a lot of technology you can apply in terms of all of these – go on the process and say 'how can technology help?' But before you can automate something you have to proceduralise it (so you have the process there first?) yes. You can't automate things that aren't."

The question of process compliance remained unresolved during this research. It is an issue that will recur throughout this description of the current Xerox SFA initiative.

Further Account Management improvements are expected to accrue from the issuing of F2F laptops. These include an improved ability of sales people to gather, communicate and share information with customers. Remote customer query handling via email is obviously facilitated through mobile technology. The productivity benefits in this area are, in the main, time saving productivities.

[2, 86, 1999] "it's the – the saving time yes. The time at the minute that's spent in having to go back into the office to pull off email, to contact people – all of those things. I couldn't go any further than that at the moment because I don't known what the real effects will be."

And...

[1, 33, 1999] "...that fact that it's laptops means that because we have remote dial access we can work from home... If you imagine say working in Woking, and your customers are right down to Portsmouth, Southampton – if you go to a customer in Portsmouth, you're not going to want to drive all the way back to the office in Woking to pick up some information, or pick up your email for an appointment the next day. It's not productive to spend too much time in a car. Whereas now they can literally go straight to another appointment knowing that when they go home that night they can pick up their email, pick up their documents, maybe they won't have a hard copy, or they could send it to the customer for the appointment the next day. So the productivity improvement there is quite big, and that's pure laptop, no database."

6.4.2 SFA and Industry Marketing

The SFA proposal suggested that the use of laptops would enable the following practices and benefits:

- *Standardised Templates for Public Sector Proposals*
- *Product Demonstrations delivered electronically on remote sites via CD/DVD*
- *Campaign Management and Database Quality Improvement*

The value of standardised templates for use by the F2F sales force is a subject of some debate. A regularly encountered view was that proposals should be tailored as far as possible to the particular opportunity in hand. One view is that proposal configuration systems can lead to an undesirable 'lowest common denominator' effect:

[10, 69, 1999] "...good proposals don't have very much 'boiler plate' in them, because they should be tailored to the customer. Unfortunately, that's the down side of IT, it's too easy to take boiler plate. I think a lot of this technology actually makes for worse proposals rather than better ones."

The real benefits of SFA regarding Proposal generation at Xerox are related to the possibility of identifying and distributing examples of good practice:

[2, 81, 1999] "Our MD has just asked us where the standard sales force templates are, to use. The MD of the organisation, which is Rob Walker, has just asked, you know where are the standard templates that the sales force are going to be using. In response I'd have to say they're not ready yet. I don't know what they are - I've been a salesperson - and I used to take a proposal, or the proposal which was most like the situation I was facing - and cut and paste bits out of it and reformat it. Standard templates don't really work brilliantly well. Structure, yes. Absolutely. Management summary, index, all of those type of things, but proposal or configurators that I've used in the past have tended to come out of the States and have been very long winded, and you end up just chucking the sheets away that you don't need, rather than actually producing what you really do need... But I think inspecting is what's really important. And I think the ability to inspect things remotely. Now effectively say 'right, I want all of the proposals in'. At the moment I can't get hold of any proposals from sales people without going under. But if I say I want all of the proposals actually dumped back to me in a central file, I can take a look and say 'that's a good one - that's now going to become a milestone. That's lousy, that guy needs training'. And if he's still lousy in a month's time he needs disciplining, and if he's still lousy he needs to be out. Or if it's good, let's make use of it. But that's, we're not good at doing that at the moment because we don't have the tools to do it. So, laptops should be useful to actually, for highlighting best practices. And it has to increase productivity."

Another productivity benefit associated with proposal generation stems from the simple fact that F2F people are now able to produce proposals when and wherever is required.

[1, 32, 1999] "The laptops have to be good for productivity. We used to have 2 PCs between 11 of us. You can imagine when someone wants to type a proposal for a customer. You literally used to stand up off your seat and turn around and someone else was logging onto the PC. There used to be regular fights in the office – if not funny, it wasn't very productive... It's not necessarily just the laptops, if you just had 11 PCs you would have had a benefit because you would have been able to type proposals when you wanted to, and you could update the database when you wanted to, you'd be able to access information you needed to send to a customer when you wanted to."

Salespeople can now produce proposals, and collect information to include in them, at any time. This has the obvious benefit of avoiding situations in which proposals are delivered late due to lack of IT access. "If a customer requires a proposal quite quickly you would have had little chance of getting that proposal done quickly without a lot of hassle. So therefore they're more likely to get their proposals in on time." [ibid.].

There is also the possibility that proposals will be generated, or completed 'just-in-time', with the customer, on-site. This possibility is laptop enabled:

[8, 110, 1999] "My hope is that they will have an appointment, use the laptop, which will hopefully give them information on, you know, if you're in a customer, when does the lease end on that, what's the settlement, here's your proposal. I've got all the information because I've got my laptop with me. And hopefully when he gets into his car, or comes off the phone, that laptop's plugged into our systems – we can then, if he comes away with intelligent information we should be looking at inputting that – job done. Whether it will happen..."

The pricing element of any proposal is integral, and Xerox are developing a Pricing Calculator application to be used on laptops. Currently salespeople enjoy a degree of latitude in discounting items from list price, but sales that do not conform to list price are progressed through a non standard process. The Pricing Calculator will, it appears, enable sales people to construct flexible deals whilst maintaining process compliance:

[1, 106, 1999] "...and then it's things that haven't arrived yet, things like we're developing a Pricing Calculator, because we have a very rigid price list, so anything off that goes through a non-standard process. So we're developing a calculator that will enable the salespeople who use now a laptop to put flexible deals together, but maintain margins, but also give the customer a plan... Everything will become standard instead of having 80% non-standard, which is where we are."

Sales offices have had access to CD based product demonstrations for some time, but they have not had the tools to make use of them. The use of virtual demonstrations on-site is made possible and likely with the introduction of laptops. Importantly, the ability to provide demonstrations on-site suggests the possibility of Selling Process compression; of progressing through the stages of the Selling Process in less time. This compression applies particularly in Stage 6 of the Selling Process (Present Proposal & Justification), which includes the sub-process 'Demonstrate Solution to Customer', but also Stages 4 & 5 (Identify Customer Requirements, and Determine Potential Solutions). Selling Process compression is directly linked to revenue growth:

[1, 36-39 & 199, 1999] "They're more being used for virtual demonstrations, they have lots of CDs – we've always had, provided CDs that will do virtual dems of our software, so when we're explaining to a customer we don't have to draw it, we can actually say 'this is what it looks like... these are the benefits'. Never been able to use them. We used to produce the CDs and probably just have one per team, presuming that the manager had a PC or a CD ROM which they didn't – if it was it wasn't a laptop etc... So now we all have them... so they would be able to demonstrate those in front of the customer, which stops you having to, the selling step of, you know, generating customer interest, and then you qualifying it by doing a demonstration – you don't have to wait to set up a dem in the showroom, you can do it there and then. It speeds it up, it compresses the cycle. To use virtual dems means you'll compress the selling cycle. The more selling cycles you can compress, the more customers you visit, the more revenue you generate."

6.4.3 Sales Activity Management

Laptops linked to MDB tools will enable F2F people to:

- *Increase the Number of Effective Customer Contacts*, and to be,
- *More Effective within the Sales Call*, and also,
- *Lead Management is able to be directed straight to the salesperson and receive their instant attention*

The number of effective Customer Contacts it is possible to make is a function of both Coverage Capacity and MDB content quality. It is envisaged that the provision of laptops and MDB access will improve both these measures. The coverage capacity of an individual F2F sales person is improved, as previous Chapters explained, by an increased use of the telephone. However, there are still many customers that require F2F engagement. The laptop provision enables

the productive use of time through the reduction in necessary 'windshield time'. F2F people no longer have to return to the office in order to collect information etc, as remote inspection/interrogation of systems is now possible (as described above). In turn, the provision of laptops should increase the potential volume of F2F hours achieved.

Effective customer contacts are contingent upon contacting the correct person, with the right message, at the right time. Increasing the number of effective customer contacts is directly contingent upon the collection and use of intelligent market data. The provision of laptops enables F2F people to update the MDB with market intelligence at virtually any time. Again, the question is, will they? The logic linking data quality to effective/intelligent coverage is clear, but it is evident that intelligent data takes time to collect. One barrier to improved MDB quality has been removed – lack of F2F access. However, it is apparent that access alone may not be enough. A common view is that improved data quality requires "a laptop combined with routine and disciplines" [1, 77, 1999]. It requires a change in the behaviour of sales people, and increased process compliance. The Sectorisation of the Salesforce element of Go To Market included a centralisation of the Commercial, Government and Graphic Arts (ISO) CBUs – but GMO remains geographically distributed. These changes may bring about important changes in the way that F2F people work. These possible changes are described in Section 6.4.5 below.

Laptops combined with MDB tools may enable salespeople to be more effective within the F2F opportunity. The possibility of Selling Process compression through virtual demonstrations is one example of improved F2F effectiveness. Another way in which Selling Process compression may be achieved is through access to essential information whilst in the F2F opportunity. Access to information, either stored on the laptop or remote systems (eg MDB), whilst engaged with the customer, may enable sales people to avoid situations described in the following:

[9, p7, 1999] "I constantly find myself in situations where I have to leave customers, sometimes on the verge of making a decision, to either try and find information which I do not have access to, or try and find customer reference sites to visit. Often by the time I have got back the momentum has gone."

The payback on timely access to information:

[5, 40, 1999] "...is massive. So giving them laptops to sit in front of customers with CD ROMs and presentations is great. And they'll have your hand off for it, you do a nice presentation, a lovely slide show, they'll have your hand off for it."

Access to timely information in front of customers is a major benefit expected to accrue from the distribution of laptops linked to remote systems. Timely information within the F2F opportunity enables the acceleration of Selling Process performance, may free-up time, and increase overall F2F productivity. However, current limits in technological capability may hinder this ideal. Effective remote communications and timely systems access are dependent upon satisfactory infrastructure capability. In 1999 significant technological barriers to the effective use of SFA tools remained a problem:

[18, 220, 1999] "The infrastructure to make that (MDB) available to everybody – in everybody's hands, so to speak – the technology's not up to it yet. The bandwidth isn't there, you know. It's no use giving a salesman a tool if he's got to sit and look at the screen for half a minute to a minute. You know, it's got to be like that (clicks fingers)."

Aside from some F2F people being "embarrassed not to have it" (see above), the increasing use of IT has implications for the image and credibility of Xerox as an IT service solution provider. This aspect of SFA was raised by participants many times, for example:

[2, 89, 1999] "...if we can't communicate electronically with our customers then, quite frankly, they see us as a bit of a dinosaur... email has become the new currency – you don't send anyone a letter anymore, you email them. Makes more sense."

The routinised use by F2F people of IT may have positive implications for customer relationships:

[1, 145, 1999] "You're an IT organisation, selling printers into an IT environment, and you don't have laptops... It's almost a credibility thing, for the customers... I mean, all IT people deal via email, you know they don't do a hard copy as a matter of course. So you then become more used to, you know, you can find me at home also with a laptop and a modem at all the times that you need me. Then, if you're working in the same way as they are, you're far more likely to build up a good relationship with them. As opposed to if you work with, you know, 'Oh I must come and visit you, I must do this, I must do that' – IT people would probably be a bit, 'Well I don't need you to come and visit me, email me with the details, email me with the proposal'."

IT use by F2F representatives of a modern IT service solution provider seems essential. Xerox sales people and customers will benefit from access to timely information, and must, in short, walk the IT talk:

[17, 47, 1999] "It's also about improving productivity so that the salespeople don't have to travel in to the office. It's also about improving the image of our salespeople in front of our customers, using the technology – it's also about walking the talk. I mean we support these, these solutions, therefore we should use them, you know - So we should walk the talk. And also the fact that the salespeople are having to use the technology that we're asking our customers to use means that we can empathise with them, and we understand intuitively the problems that they face, in terms of applications and how IT adds value to their real business."

The lack of compliance in updating the MDB with the ongoing status of leads, passed to F2F people from the TBC, was described above as problematic. In some instances this lack of process compliance encouraged campaign managers to recommend that leads should be dealt with, end-to-end, from within the TBC. Once again, the lack of process compliance was in part due to the F2F force's lack of MDB access. Whether the removal of this barrier, and the automation of the leads distribution and tracking process, will lead to increased process compliance remains, again, unknown. However, limited evidence suggests that progress is underway:

[1, 46, 1999] "The MDB doesn't like send us leads. The current process, because no one has laptops, is that a hard copy lead gets sent to them in the internal mail. They will call up the customer, they will write up on there what happens, and send it back in the medium term or hard copy mail to someone who will go into the MDB and update it. Well we can go in, and they can go in and update it, but the process has always been that we pull out this hard copy piece of paper, assuming that salespeople would never put it in, or never update it. Well, as soon as they knew they could, that's what they went and did. And we were just talking about this morning, you know, only a few of them have had leads since we've had laptops, but those that have had said, yeah, either I'm going to do that or I have done it already."

6.4.4 SFA and Coverage Contracts

The pilot proposal suggested that SFA would lead to:

- *Automated Electronic Coverage Contracts*, and would enable an,
- *F2F link to TBC for improved flow of information and coverage*, which is,

- *Essential for sales that have dual coverage with the TBC to effect optimal coverage*

The Coverage Contract process prior to SFA was described briefly above, and is similar to the leads distribution process described in the final quotation of the previous section. Coverage Contracts were distributed to sales people in a paper file, any actions were (in theory) noted in that file, and somebody else would then update the MDB. The introduction of laptops may enable the redesign, or automation of that process.

Intelligent Coverage and Optimal Channel Mix require the continual addition of quality data to the MDB, and the close, seamless integration of the F2F and Telebusiness channels. Hybrid Selling requires smooth communication between the F2F and Telebusiness sales forces, and it is envisaged that SFA will enable this communication. At the time of this research the desired state was clearly defined, but some distance away. At the time of this research 'dual' – or Hybrid – coverage in many instances meant 'duplicated' coverage. Market Engagement resources were not yet employed in an Optimal or Intelligent manner:

[8, 162, 1999] "now, part of what the Telebusiness Centre are doing for us is also putting in, is updating the database with hopefully updated intelligent information. The problem we've got at the moment... so that's happening, right - so we are gathering more information but, if you like we are, rather than being perhaps as we should be, we're blanketing, because I've still got salespeople covering this, and we've got Telebusiness maybe contacting the same customer at the same time. So what I'm trying to do is, because our systems aren't good enough at the moment - I'm saying 'lets hit it', because it will turn in some business. But are we doing it intelligently enough at the moment? No, because our systems aren't intelligent enough to do that. But we're doing a better job than we were. And we are gathering more and more information on the MDB. And if I give an account to Telesales I know that they will get coverage by phone and also the new data will be gathered. What I can't rely on is getting that from the salesforce. Because they haven't got the technology. So if you like we could be hitting a customer twice at the moment, and the customer'll be going – 'I had a call from you yesterday'. But that's better than not covering at all."

Although SFA enabled Hybrid coverage was not yet a reality, the proposal's authors recognised the need for good relationships between the F2F and Telebusiness teams [18, p2, 1999]:

"In an effort to proactively utilise the TeleCoverage model, team members have visited and established a relationship with our TBC contacts. The introduction of

laptop technology with remote dial in will significantly enhance the speed of communication between [Telesellers] and [F2F sales people] through access to F2F salespeople's diaries and customer data."

6.4.5 SFA and Territory Planning

The introduction of SFA will enable:

- *Database and Contacts [to be] introduced from 3rd party [TBC] data,* and,
- *Diary Management [to be] improved.*

In Section 6.4.3 above, it was suggested that the centralisation of sector CBUs may contribute to changes in the work behaviour of F2F people. Changes in working practices will be required because, although the ISO CBUs are to be centralised, support personnel will remain in the previous GMO geographical structure. The Sectorised F2F people will be managed from a central CBU, but will remain dispersed around the country. F2F people will effectively have to support themselves:

[14, 52-56 & 11, 1999] "...the salespeople in these three big sectors now don't have any support at the remote offices. So, we used to have people who run around to help them do various things. I mean in addition to typing their proposals, you had somebody to look up the new leads that had come in, to print them off and give them out to individual salesmen, the new leads. And then somebody to come round and hassle them for updates. 'Where is this now?', 'what are you doing with this now?', 'I've got to update it'. And all these sort of administrative tasks that they've always had a flunky to do, they don't have the flunky any more... So they don't have people in these offices to do these things for them. They don't even have anybody to print off their monthly activity [Coverage Contract]."

"And all the sectors are national, all three sectors are national. But all the support people have stayed with the old geographical structure. And so they have no responsibility for the new sectors. So the new sectors haven't got anybody. Or rather they've had some, they were given head count to do it, but they chose to use that to do something else, you know, as they do. But, so all of a sudden they're faced with a problem, they've got colleagues all over the country, and they've got nobody to do the communication and stuff for them, so they're faced with having to do it themselves. And so its very difficult for them, because in each one of these offices, although there's space for them, they don't really have any rights. You know they're like squatters, because the people around in the office, they don't belong to them. They don't report to people in the office, they report to

somebody centrally. So they're a bit nomadic. You know they don't actually have any support."

"So for the first time they're looking down the gun barrel saying 'I haven't got a secretary here to do things for me, now what do I do?'

The F2F people will "not have a desk in the central location, they'll be expected to hot desk" [1, 79, 1999]. They will be required to work from remote locations, or from home, to a far greater degree than they currently do. The laptops are therefore essential for the purposes of team communication, and management. Both Sales Managers and the TBC will have access to the F2F people's diaries. Evidence suggests that the work patterns of F2F people will change dramatically:

[1, 85 & 199, 1999] "...currently they all sit out there and I see them every morning and every evening and every time they come back from an appointment. I'll be on one on one in the office and they'll be like out with customers and not coming into the office. So I need to know where they are, and what they're doing, and how to contact them, and they need to be able to do the same with me... The technology that is a part of Microsoft's general bog standard package allows us to work together remotely with the diary share. You know, so I can go in any of my teams diary and look to see where they are. I can book appointments in. The working remotely, the laptops are a necessity, you couldn't work without them – if you're working remotely, which we will be. So that's really the way we work, it's really different, it's more effective I really think."

The question remains as to how the F2F people will respond to the changes described above. These changes link with the changing role of F2F people expected and illustrated in Chapter 4. As that Chapter described, the role of F2F people is changing 'from Box Shifters to Territory MDs'. Remote working is but one element of the overall re-definition of the F2F role, which is itself but one element of the Go To Market strategy. A concerted effort is underway to change the way F2F work is carried out, and the appropriate Facilities strategy, as part of SFA, contributes to that goal:

[3, 94-101, 1999] "One's getting your facilities strategy right. You can close buildings, hot desk, you can free up time. If we're asking people to be Managing Directors of their own territories, we don't need them in at nine to make sure that they start at nine, and then driving to see a customer takes then 'till ten. So it's weaning behaviour off, it's then, at the end of the day you're only doing it for the customer. The customer should be able to get access to the Xerox maze, and value, and capability – and it will get the sales force being able to deal in front of the customer – make amendments, and search every customer requirement, you don't get into a long Selling Process. So IT will speed up a lot of the way they work. The secret is not giving them laptops, it's making them use them optimally... You try and almost educate this MBA why are we doing it, why would

your customers be doing it – give them another wavelength to reach the customer. And then suddenly it's not a guy up in Xerox who's peddling tin, it's business to business solutions solving, and you know, 'Would this be of benefit to you? You're doing this'. You know, you're getting shared dialogue, and suddenly you look more like a value added partner. So you know, you can use IT for your advantage."

It is interesting that in a previous SFA initiative run in the USA, F2F offices were closed altogether – to pay for the initiative. This SFA initiative was eventually cancelled. The office closure decision was reversed, partly because of system problems, but also...

[14, 44, 1999] "Now salespeople being what they are, will come into the office fairly regularly anyway, because they're fairly clubbable creatures. And the Americans tried to pay for their Sales Automation by closing down small offices. And they ended up with a whole load of lonely salesman all wanting psychiatric help because they couldn't see each other - they're all very lonely and insecure. So they had to re-open these offices. So a bit of a disaster really."

The problems of managing the sociological elements of remote or home working are not unique to Xerox. Whether communications applications can effectively compensate for, or replace F2F human interaction is an important, and ongoing issue:

[8, 284, 1999] "you know, on top of that we are merging a lot of offices, you probably know about them, why we've got these offices. We've got people with laptops, go and work at home. But that's... I'm a firm believer in all this technology. We talk about home shopping, we talk about you know - I'm a firmer believer in human beings. Human beings want, you know, we talk, we like to meet. When one goes down to Safeway, and doesn't order it on the Internet - because she goes there and meets people. She likes to, you know... and that's why we meet in offices as well. Laptops – 'go and work from home boys' - but we're conversational, that's the human race, we still need somewhere to meet and talk shit and that. So that's going to be a big change for us you know... I would hate working at home. I need to feed of other people, you know - big changes."

6.5 SFA Summary

The evidence presented above suggests that there are two kinds of productivity benefit expected to accrue from the current Xerox SFA initiative. The first group of benefits are those that stem from the fact that F2F sales people now enjoy immediate access to mobile computing. Benefits in this group include increased F2F hours through reduction in the necessary 'windshield time', improved

responsiveness to customer queries via email; improved remote team work and communication with colleagues and management; timely proposal generation – any time, anywhere; improved credibility/image in the eyes of customers; and Selling Process compression through the use of extant resources (demonstration CDs), that were previously unusable, in the F2F opportunity.

The second group of SFA productivity benefits result from the remote laptop interface with existing Xerox systems (MDB, but others also). These SFA benefits accrue because the laptop enables the mobilisation (remote localisation) of sales tools that were previously limited to office use. Such benefits include improved MDB data quality through immediate and mobile update capability - hence improved effective contact rate and Intelligent Coverage, and more quality leads generated through Campaign Telemarketing; consistent Account Management structure – eliminating process breakages; automation and acceleration of Coverage Contract and Leads Management / Tracking processes; Selling Process acceleration / compression through information search and presentation within the F2F opportunity; and effective Hybrid Selling through improved MDB data quality, and dual access by F2F and TBC people.

The greater benefits are likely, in the future, to fall into the latter category:

[1, 108, 1999] "The laptops in isolation will improve productivity, yes. And it will improve or reduce cycle time – purely because they have accessibility tools and technology. But the real benefit is the tools that then allows you to use, which is things like the MDB."

But the MDB tools are currently underused:

[5, 32, 1999] In terms of the MDB - as a tool - its probably, no body else has got a tool as good, and yet we still don't get the maximum out of it."

Arguments exist to suggest that SFA may go some way to changing this state of affairs for the better. The anticipated benefits from SFA implementation are summarised in Table 6.2 below.

In some respects the SFA label is something of a misnomer; at this point very little of F2F sales work (or Selling Process stages) is truly automated. There is

perhaps less scope in F2F sales, in comparison to other areas of business, for 'genuine' process automation. A lot of selling it seems is:

Table 6.2 – *Anticipated SFA Benefits*

Benefits from:	
Laptops Only	**Laptops with MDB Tools**
Increased F2F hours (more selling time)	Increased MDB updates – Improved Data Content Quality: - Increase effective contact/call rate (Intelligent Coverage) - More quality leads through Campaign Telemarketing
Improved Responsiveness to Customer (email – remote query handling – improved customer satisfaction / loyalty)	
Remote Teamwork, Team Management and Communication	Automation / Acceleration of Coverage Contract & Leads Tracking / Management Process
JIT/Timely Proposal Generation (improved win rate)	Eliminate Account Management Process Breakages (improve customer satisfaction)
Improved Corporate Credibility/Image	More Effective Hybrid Selling/Coverage (better MDB quality, F2F-TBC communication)
Selling Process Compression / Acceleration (less cycle time = more cycles = more revenue)	Selling Process Acceleration / Compression (timely info in F2F opportunity – on-site)

[10, 56 & 133, 1999] "...is nothing whatsoever to do with IT – it's interpersonal skills.... To be honest, I'd get quite apprehensive if too much technology comes into it. I love technology myself, as you've discovered. But it has to be used with quite a light touch. I'll tell you what I mean. I went to see the Managing Director of a company called Stratus, a chap called Frank Pike, and he told me about what he was trying to do with his sales team, and I said 'let me show you something', and I opened my brief case to take out a piece of paper, and I took it out and he said 'Oh thank god for that, I thought you were going to bring out one of those bloody PCs'. You know, so senior people, they can get bored to death with people doing Powerpoint presentations to them. So it's got to be used with a very light touch."

Arguments exist suggesting that the scope for automation within the F2F opportunity is limited:

[11, 91-92, 1999] "...certainly when you're at the high end, when you're into industry solutions, you're talking about application selling, understanding a company's work processes and work flows, I guess the only way that technology will change those people is that they will become more mobile and they probably will end up giving them laptops so they can cover a bit more position. But to find a piece of software that automates it when every single situation and company is different is very very difficult. Certainly not in, I couldn't see how you could automate it. You could certainly organise those people better, giving them better organisational skills, better communication skills, contact skills. But they won't, their brief is very much to get right into guts of an organisation and understand it. And you will probably help them organise themselves by giving better documentation, things that support themselves, and account plans, but not, not automating the sale... The most important thing when you are dealing at that sort of level within a company is to be able to sit down and have meaningful conversations, and do meaningful sort of application gathering of that company, and then being able to add your expertise, and fit that to a solution that Xerox can provide to improve productivity, performance, whatever, within the company."

Automation of the Selling Process may be difficult, but that is not to say that its progression might not be accelerated, enabled, organised and performed in a more productive way through the application of IT. The above discussion suggests as much, and each of the productivity benefits described in this Chapter can be linked to the improved performance of the Selling Process or its sub-stages.

This Chapter concludes with a brief description of the views of participants about the probable future developments in IT application to Customer Engagement. These views were in the main about the implementation of an ERP (Enterprise Resource Planning) system called SAP ('Systems, Applications and Products in Data Processing' – Martin & Cheung, 2000). Also, although Ebusiness development was embryonic at the time of this research, it is evident that greater use will be made of this channel in the future.

6.6 Further Developments in IT Application

As Section 6.2 suggested, the MDB will at some stage be superseded by the purpose built Xcalibur – but only when the latter's MM capabilities are enhanced to reflect at least MDB's current capabilities. A number of participants suggested

that Xcalibur itself would be superseded, as soon as is practicable, by SAP. SAP is...

[14, 100, 1999] "...a monster. It takes over everything you've got. It's a German software package which contains modules for just about everything. The last piece that they're putting in is their Sales and Marketing module, interestingly, because we've got a lot of people up in Marlow trying to build something which I don't think they need to build [Xcalibur]. I think they just need to wait for SAP to arrive. And the great benefit of SAP is that it's a fully integrated application that does, that carries out all your business transactions. So you don't need to interface it to anything else, and you change one part and the changes ripple through the others. So theoretically that's all you will ever need. You don't actually need anything else. They've certainly standardised for back office systems, which is all the Inventory, all the Accounting, all the Processing, all those bits and pieces. They looked at everything, and I think SAP is probably the most expensive, but it is the least expensive to maintain, because it, because of its design. Yeah, it is a complete structure, a modular structure that you don't have to keep taking it apart and putting it back together again. Its very easy to change, that's what they say anyway."

SAP integrates all existing and disparate systems, and enables the centralisation, or simplification, of an organisation's IT architecture:

[16, 48, 1999] "SAP's role is to come in and basically be the technology link to - Oh I can't think of the term I want to use for our systems - anyway SAP, what SAP does is it sits on top of a myriad of systems, and will draw the information you need from these systems, the information you need from these systems, the information you need from these systems and pull it all together. Where now we might have to run four batch runs and get four reports to get the information, SAP will say, 'I'll get you your report from this bit, from this bit, from this bit, and I'll bring that information together, and I'll write standard reports drawing on your base systems that are still there'."

The integration of many disparate systems into a single interface offers obvious efficiency improvements:

[8, 126, 1999] "We are updating our technology in SAP. We have a mixture of different feeds at the moment. If I asked a salesman to tell me what that customers paying at the moment, how long he's got left on his lease, how much is he paying maintenance - he would have to feed into, to go in to two or three systems to get that information."

SAP's implementation raises the possibility of automating the Order Processing and Order to Implementation elements of the Selling Process. It requires, or results in, a degree of process standardisation and simplification. SAP may

remedy current process breakages, and contribute significantly to Selling Process compression:

[16, 56, 1999] "I think in the future in the future, what we can't do now is I can't put an order in, what I can not do now is put an order in and see when that product is going to be ready for the customer and delivered to the customer. I think three years down the road a salesperson will be able to sit with a customer and say, 'OK you want this solution, or you want these boxes', if I can get your order today I'll be able to put my order in then, be able to tell the customer that the delivery will be this date. That process now takes 14 days within Xerox. The salesman goes back with a piece of paper, it goes into one system, to have the order put up on the system, then it goes to a logistics systems that says 'we need to build this kit', then it goes to another system that says 'OK plan the delivery', you know so the customer has to wait. So we have to call back the customer and say 'well we're planning on delivering now', and then if you, there is a process if the customer says 'well, I can't really take it', then you have to go back through your 5 steps of the process - I think we'll cut all that out because the systems will be able to do it all at once. And that's where technology is a key enabler."

SAP does not enable the automation of the F2F opportunity, but facilitates the standardisation and acceleration of some sub-elements of the Selling Process. The Pricing Calculator example above will work within the SAP system, and will facilitate or accelerate the 'Present Proposal and Justification' (Stage 6) stage of the Selling Process. SAP may guarantee process compliance:

[1, 61, 1999] "...the ideas is that, instead of having, currently we deal with hard copy contracts, we produce proposals on normal Microsoft software like Word and Excel and things like that. They then become a contract and the Contract hard copy gets processed into an Order and the Order gets delivered. The idea of SAP is that, you will from Proposal Generation work within SAP so, whereas now you could propose anything to a customer, even if we didn't sell it, because its got no control around it, around the configuration you've sold and the price you sell it at, apart from a manual control at the end of the, once the Order's taken. SAP will not allow you to generate a proposal unless it is the right configuration or a configuration that works together, so then you'll put in Pricing boundaries, the customer is loaded onto the system etc, so you generate the Proposal, once the customer finally accepts your Proposal the salesperson will bring the laptop back in, log into the network and off it would go as an order."

SAP may, when implemented, enable a greater degree of Selling Process automation than is currently possible, and may lead to an elimination of process non-compliance in some areas. However, when Xerox's implementation of SAP in the Marketing & Sales environment will take place is unsure. Because, as the above suggested, the Marketing and Sales SAP module is not yet complete.

[11, 122, 1999] "...I think the drive is to eventually send us over to SAP, and then we will have Telebusiness as a front end to SAP. But the problem is that SAP haven't even developed their market management database, their customer database at the moment. We will probably be their first customer to take it."

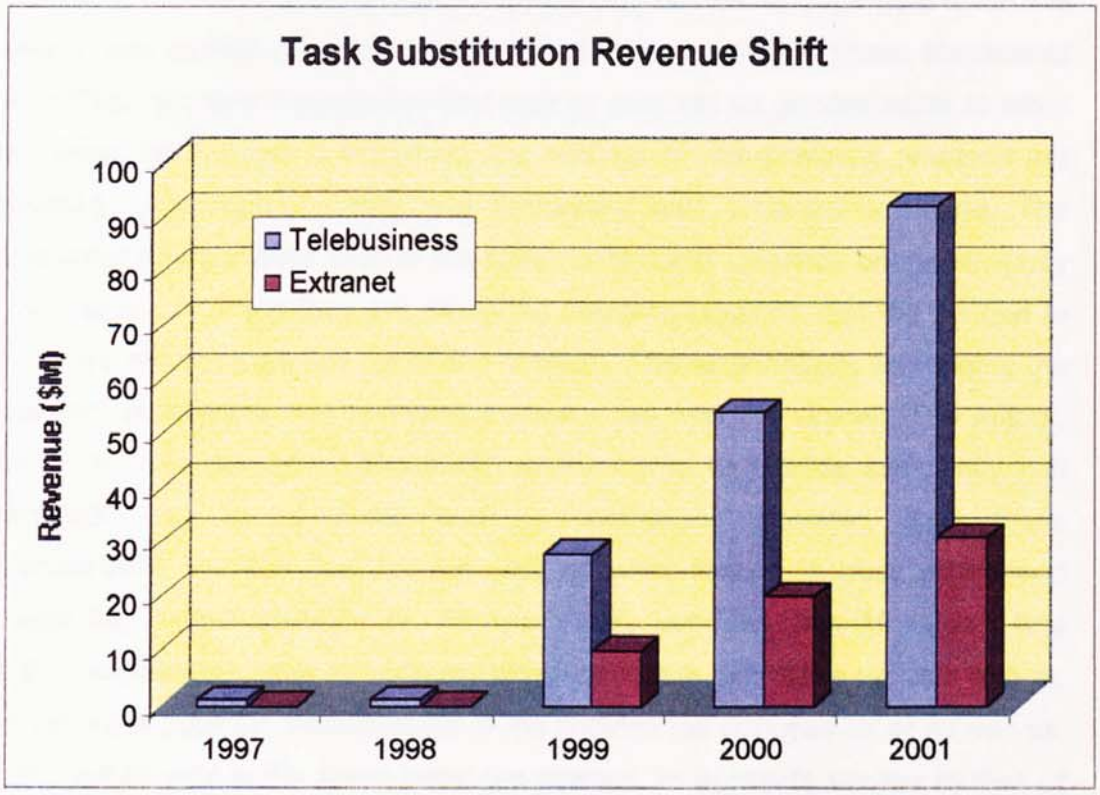
As Chapter 5 described, Ebusiness at Xerox (UK) is at a very early stage of development. Two distinct models of Ebusiness are in construction: the Internet based model for GMO, and the Extranet based model for ISO. Chapter 5 also noted the reasons for the relatively slow development and integration of the Ebusiness channel (compared with the Telebusiness channel, and with some other Xerox Entities). Xerox UK chose to invest in Telebusiness ahead of Ebusiness, but are also faced with difficult channel conflict problems. Most importantly, though, is Xerox's approach to system development. That approach is to first prove a model in one Entity, then to replicate world-wide. For example, the UK Entity is continuing to pioneer the Telebusiness model, which will then be replicated and adapted in other geographic Entities. It appears that Xerox USA are leading the Ebusiness development initiative.

Despite its relative lack of emphasis in the Go To Market strategy, Ebusiness – particularly the Extranet ISO model – is still expected to play an important and growing role in Xerox's Customer Engagement activity. Chapter 3 showed that in 1997 Ebusiness accounted for a negligible share of total Xerox revenue – but by 2001 the Extranet channel was projected to contribute $31m, which is 4% of the total (including direct and indirect channels). Telebusiness is projected to contribute 10% of total revenue. Extranet channel growth, as compared with Telebusiness, is shown in Diagram 6.5 overleaf.

At the time of writing (Summer 2000), Xerox USA had begun to take orders for SoHo products on-line. As with the UK (described in Chapter 5), the USA appear to believe that lower value, commodity type products are, at this stage, better suited to the Ebusiness channel. As the USA model is developed and proved, there is little doubt that Xerox UK will also seek more aggressively the potential process automation and elimination benefits associated with both Internet and Extranet based Ebusiness. The following quote (supplied by the researcher's supervisor) from the Xerox intranet, summarises the most recent developments in Ebusiness in the USA:

[Xerox Intranet, 25/05/00] "*SOHO E-commerce becomes automatic. SoHo (Small office, Home office) customers will find purchasing – including ordering, paying, confirming and monitoring – products on Xerox.com easier and faster via the first completely automated e-commerce system on this site. This automated first for Xerox includes automatic credit card authorization, taxes, shipping and handling, order confirmation and online order status – eliminating manual processes. The (Xerox) North American Retail Operations group developed the system to better enable the customer relationship and reduce internal order processing costs. From Xerox.com customers will now be able to better purchase directly from Xerox or through retail partners. The full SoHo product line and corresponding supplies are presently offered through the system, with the addition of media products to be available in the near future.*"

Diagram 6.5 – Telebusiness and Ebusiness Channel Growth [7, p20, 18/06/98]



In the remaining Chapter of this thesis the findings of this research are collated, summarised and discussed. Suggestions for further research are offered also. The following Chapter includes:

A discussion of outcomes of the inquiry, which may most usefully be thought of as the "lessons to be learned" from the study. These lessons are not generalisations but "working hypotheses" that relate to an understanding of the case (Lincoln & Guba, 1985).

Chapter 7

Research Conclusions

7.1 Introduction

In the first part of this concluding Chapter the major findings of the research inquiry are collated and summarised. The major findings are presented as statements that relate to an understanding of how Xerox UK, the case site, managed and used IT in their direct channels of Customer Engagement when this research was carried out. That is, from late 1998 to late 1999. These statements are in effect Working Hypotheses that may or may not be generalisable to other case sites. As Chapter 2 explained, the findings of non-positivist research are necessarily idiographic – they are temporally and contextually bound. The applicability to other case sites of the statements below depends on the similarity of the context in which they are grounded (sending context), and the context to which they might be applied (receiving context). The responsibility for judging the 'alikeness' of sending and receiving contexts lies with the reader. The author, meanwhile, has throughout this thesis endeavoured to provide sufficiently rich descriptions so as to make such a comparison possible. With these considerations in mind, the full meaning of what follows is best understood through the mental insertion of **"At Xerox UK, between late 1998 and late 1999..."** immediately prior to each working hypothesis. For those readers with an interest in the potential transferability of the findings (as opposed to, or as well as, an intrinsic interest in the Xerox case) the preface **"In contexts similar to that of Xerox..."** is required. If clarification of this issue is required, the reader is referred to Section 2.11.2 – which provides an explanation of just how transferable the research findings might be.

The working hypotheses are distilled from the findings presented in Chapters 3, 4, 5 and 6. They are in most cases associated with a number of corollary (subsidiary) findings, but this Chapter focuses on the primary "lessons to be learned" from the research. Where possible the Xerox experience is compared with the previous and related research that was reviewed in Chapter 1. However, in the majority of cases little comparable published research exists. After all, the

initial focus of this research was in part selected precisely because of this paucity of extant understanding.

The reader will recall from Chapter 1 that the field research stage of this inquiry began with the definition, in consultation with the research supervisors, of seven initial and general research questions. Those questions are reiterated below.

1. **What does the Xerox Selling Process look like?**
2. **Is the Xerox Selling Process 'specialised' for different products, markets etc?**
3. **How do Xerox use IT in the Selling Process?**
4. **What benefits accrue from using IT in the Selling Process?**
5. **What problems are associated with using IT in the Selling Process?**
6. **How is the Selling Process managed?**
7. **How are Customer Engagement personnel organised?**

As Chapter 2 explained, these questions were not posed directly to Xerox participants. Instead the researcher entered the field with three primary themes of interest – 'F2F operations', 'the use of IT' and 'process orientation' – about which the researcher presupposed no prior knowledge or understanding. The research (the methods and techniques employed) is predicated on non-positivist assumptions, and this 'flexible' approach meant that the saliences that emerged during field-engagement were defined by Xerox participants, rather than the researcher.

For example, the researchers conception of 'Customer Engagement' was originally limited to operations performed in the F2F channel. However, the researcher soon learned that a complete understanding of F2F Customer Engagement requires a complementary appreciation of how operations in both the Tele- and E-business channels are performed. As is now clear, the productivity of each channel is to a great extent dependent upon its successful integration with the others. Xerox employ a holistic approach to the problem of improving sales productivity, and, on the advice of participants, the focus of the inquiry soon broadened to include each of the three direct channels of Customer Engagement.

Although the focus and direction of this investigation was determined by Xerox participants, much of the description contained in chapters 3 to 6 does relate in some way to the six questions above. Questions 1 to 6 relate to various aspects of the Xerox Selling Process, and, as this research has shown, the Selling Process represents the integrating structure common to virtually all Xerox Customer Engagement activity (this finding is reinforced with statements about the Selling Process appearing in each of the following sub-sections). As Chapters 1 and 2 explained, the researcher's interest in the Xerox Selling Process was initially limited to its role in the F2F channel. However, the final research product demonstrates conclusively that this process plays an essential and central role in the organisation and management of Customer Engagement resources as a whole. It is therefore possible to relate many of the working hypotheses listed below to the initial research questions, when those questions are understood in their broadest sense.

Aside from the above, it remains the case that the scope of findings presented in Chapters 3 to 6 (and summarised below) extends beyond that anticipated at the research outset. It is a strength of non-positivist research that the scope and depth of inquiry is not limited by the definition of tentative initial questions. For example, at research inception Xerox's strategic direction was considered of minor significance (and is not mentioned in the original 7 questions). However, the findings of this research show that the changing nature of Xerox Customer Engagement activity is best understood through the lens of the Go To Market strategy. The primary financial objective of Go To Market is the delivery of a benchmark E:R figure, and the key Go To Market themes – Intelligent Coverage, Optimal Channel Mix (and Channel Optimisation), and Sectorisation of the Salesforce – are each designed with this objective in mind. Evidently, a complete appreciation of operational activity requires an equal appreciation of the strategic objectives that activity is designed to achieve.

For simplicity and consistency, the major findings presented below are organised to reflect to Chapter-structure of the thesis. However, the 'evidence' associated with each of the statements below is rarely limited in location to a single sub-section (or Chapter). The researcher believes that the full complexity of the Xerox case is best understood through a holistic reading of the four descriptive Chapters of the thesis. For example, Chapter 4 provides sufficient description for the reader

to appreciate the principles and ethos of 'Holistic Sales Productivity' – but the complete picture also requires an appreciation of Xerox's current strategic direction (Chapter 3), of how the F2F, Tele-, E-business channels interact (Chapter 5), and of how IT is employed in each of the three complementary channels (Chapter 6).

To facilitate understanding, each of the major findings is accompanied by references to locations (sub-sections in Chapters 3 to 6) of associated research 'evidence' – where relevant descriptions of the phenomena summarised in the working hypotheses can be found. Where possible, statements are also linked to the initial research questions listed above (again, as understood in their broadest sense). In this way a relationship is established between the inquiry's origins, and ultimate conclusions.

The conventions used in presenting the major findings are illustrated in the following:

11. In-process measurement is essential to productivity improvement (4.6, 5.7, 6.3.4 / Q6).

In this example (Major Finding / Working Hypothesis number 11) , the reader is directed to sub-sections 4.6 (Managing and Measuring F2F Operations), 5.7 (Telebusiness Productivity : Processes and Metrics) and 6.3.4 (Outlooking and Prospect Management) – where associated evidence / description can be found. The 'Q6' element means that this working hypothesis is related to the sixth original research question: 'How is the Selling Process managed?' The reader will note that the sub-section references listed in the example above are not limited to sub-sections dealing with the measurement of F2F activity. Participants to this research were keen to stress that in-process measurement is a generic approach to Selling Process (and Xerox processes in general) productivity improvement – an approach not limited to work performed by F2F people. This is an example of understanding the initial research questions 'in their broadest sense'.

Finally, each of the 60 working hypotheses relates to one or more of the elements in Diagram 7.3 (see Page 306), which summarises the major findings of this research. Diagram 7.3 is intended to demonstrate the holistic nature of Xerox's

approach to Customer Engagement, and illustrates the interconnectedness and interdependencies that exist between the major elements of Xerox's Customer Engagement activity. The diagram shows that the delivery of Benchmark E:R requires a successful implementation of the Intelligent Coverage sales philosophy, and that each element of Xerox's Customer Engagement mosaic has an important role to play in achieving that goal The construction of this diagram is, for the most part, self-explanatory. However, where the potential for ambiguity exists, clarification is provided in the brief discussions which accompany the working hypotheses below. Diagram 7.3 represents ***A model of IT-enabled Customer Engagement Productivity***, which is based on the practices observed at Xerox from late 1998 to late 1999.

The major findings / working hypotheses are organised under the following headings:

1. **Process and Strategic Context: the Selling Process & Go To Market**
2. **Holistic and F2F Sales Productivity at Xerox**
3. **The Telebusiness channel**
4. **The Ebusiness channel**
5. **IT in Customer Engagement at Xerox: MDB & SFA**

Following the presentation and discussion of major findings, the Chapter then concludes with a brief discussion of a number of possible further research directions that have arisen through the completion of this project.

7.2 Summary of Major Findings

7.2.1 Process and Strategic Context: the Selling Process & Go to Market

The findings in this section deal with the major themes of the Go To Market strategy, and 'high-level' characteristics / uses of the Xerox Selling Process. Most of the findings in this section are developed further in later sub-sections – which summarise how the Go To Market themes and Selling Process characteristics are 'operationalised' in each channel, and then the role IT plays in performing the Selling Process and delivering the Go To Market strategic objectives.

1. Customer Engagement operations are geared to a sales philosophy of Intelligent Coverage – coverage drives the business (3.3.2, 3.3.2.3, 5.6.1, 6.3.1)

All Customer Engagement activity at Xerox is guided by the Intelligent Coverage sales philosophy, and Intelligent Coverage is the premier theme of the Go To Market strategy. The logic of Intelligent Coverage is encapsulated in the ACCH (Awareness, Coverage, Consideration, Hit Rate) cascade marketing model, and Coverage is now the primary responsibility of the sales organisation. Xerox aim to cover 100% of the buying decisions in the market, but Intelligent Coverage is not limited to 'the sales call'. Intelligent Coverage is integral to the process of building customer relationships, satisfaction and loyalty. It involves covering non-customers as well as existing customers, and each element of the organisational Decision Making Unit (DMU). In short, Intelligent Coverage requires the sales organisation to contact the 'right person, with the right message, at the right time'. The Intelligent Coverage philosophy implies a shift in sales paradigm: from deal orientation to coverage orientation.

2. Intelligent Coverage requires the use of multiple channels of Customer Engagement (3.3.2, 3.3.2.2, 3.3.2.3, 4.3.2, 5.6, 5.6.1 / Q6)

The demands of covering 100% of the buying decisions in the market, and of contacting customer and non-customers once per quarter, mean that effective Intelligent Coverage requires the use of broad reach, high capacity modes of communication – due to the sheer volume of contacts that are necessary. The market itself is comprised of Accounts and sub-Establishments of variable 'status' or 'potential', and a single Account may consist of many decision makers and influencers of variable strategic importance. It is clear that a single, generic mode of coverage is insufficient, and that coverage activity must be customised to each account's individual profile. The modes of coverage now available to Xerox are F2F, Telebusiness and Mailers (the latter are mainly managed by the Telebusiness Centre (TBC)) – and each customer's coverage prescription is tailored from a mixture of the three. However, with the introduction and development of the Ebusiness channel, it seems that email will emerge as a fourth option in the available coverage mode mix. Xerox Customer Engagement

resources are divided between the F2F, Telebusiness and Ebusiness channels – as Diagram 7.3 suggests.

3. Intelligent Coverage requires effective, detailed Market Understanding (4.3 to 4.3.3, 5.6, 5.6.1)

This research has shown that, for Xerox, effective and detailed Market Understanding is a prerequisite to Intelligent Coverage and Channel Optimisation. As noted in point 2 above, Xerox tailor the coverage mode prescription for each customer in the market. The appropriate coverage prescription varies with customer type and the products that are likely to be purchased. Xerox research showed that buying behaviour varies by both customer segment and product group. The DMU structure and buying behaviour of large organisations is different to that of small organisations - large corporate organisations are more likely than smaller General Markets organisations to require complex, high value document service solutions, and commodity defined products are more likely than value-added solutions to be procured via the Telebusiness or Internet channels.

Accurate definition of the appropriate coverage prescription is clearly dependent on a sophisticated level of Market Understanding. Furthermore, as is explained further below, this level of Market Understanding takes time to develop. Managements wishing to emulate the Intelligent Coverage strategy must recognise that it is an undertaking of great complexity. It requires investments in detailed and large-scale market research, and a strong commitment to the continuous development of Market Understanding processes.

4. Intelligent Coverage is an evolutionary, learning process (3.3.2.3, 5.6.1, 6.3.1, 6.4.4)

Intelligent Coverage is a knowledge based activity. Its effectiveness relies on the timing of engagements, and the relevance to the customer (or potential customer) of the contact message. A sophisticated level of customer intelligence (Market Understanding) is necessary – about their purchasing behaviour (what, how, where, when, and why they buy and have bought) and interests. The gathering and maintenance of this level of information is a continuous and long term

process – it will not happen overnight (although in some cases lists are available for purchase).

Intelligent Coverage may begin with a 'shot gun' approach, but must be gradually managed down to become a timely, informed, relevant, 'rifle shot' style discipline. The *continuous* capture and maintenance of information about individual customers (and non-customers) is essential. Effective Intelligent Coverage relies on an iterative learning process.

5. The primary measure of Customer Engagement efficiency and effectiveness is the ratio of selling Expense to Revenue (E:R) (3.3.2, 4.3.2, 5.6, 5.9)

The Go To Market strategy will be judged successful if its implementation leads to a substantial reduction (to benchmark figures) in this ratio. Go To Market targets both elements (Expense and Revenue) simultaneously. Expense will be reduced through the disciplines of Task Substitution and Hybrid Selling, and the delivery of an Optimal Channel Mix. Revenue is increased through the targeting of the F2F resource at high value sales, and the development and opening of new channels to market (Telebusiness, Ebusiness, Retail). The graph on the following page (Diagram 7.1) is indicative of the general trend in channel transactions. This graph does not take into account the relative volume of transactions completed through each channel over time, but does suggest that the desired net effect of Channel Optimisation is to deliver an overall E:R approaching ten per cent.

To reiterate, the delivery of a benchmark E:R is the primary financial objective of Go To Market – it is the key measure of Xerox Customer Engagement effectiveness and efficiency. This is reflected in diagram 7.3, with 'Benchmark E:R' positioned at the 'end point' of the model.

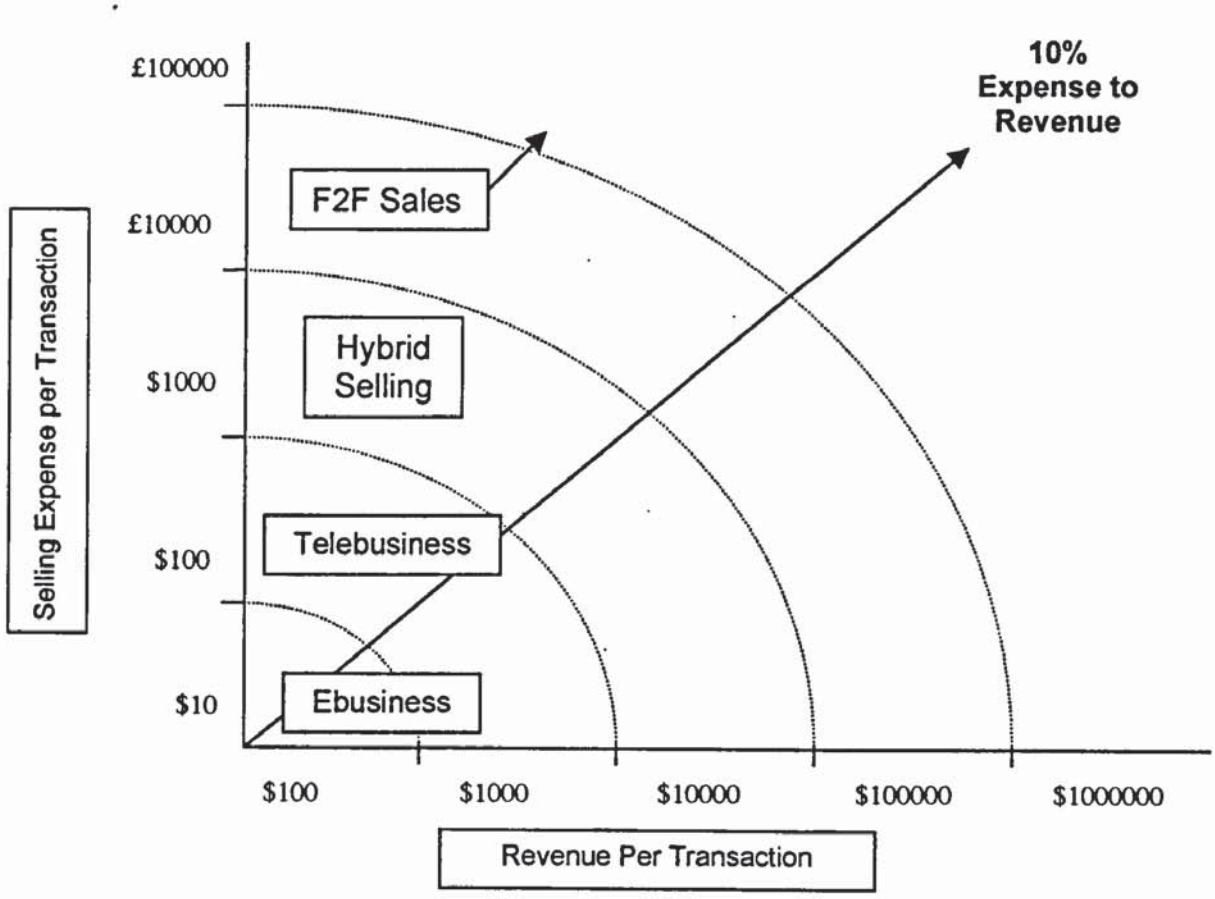
6. Multiple Business Models are necessary (3.3.2.1, 4.5, 5.3 to 5.5, 5.8, 5.9, 5.10 / Q7)

With the implementation of the Go To Market strategy, Xerox are in the process of defining two distinct Business Models (ISO and GMO). These two models reflect the differing demand characteristics that exist in disparate sectors of the market.

Historically, Xerox employed a generic business model for all customers and all products: a F2F intensive model. A combination of changing buyer behaviour and economic pressure has led to the realisation that this 'one size fits all' model of Customer Engagement is no longer appropriate or adequate.

Towards the General Markets and SoHO end of the market, customers procure through a wide variety of channels – including Retailers, Dealers and the Internet, as well as occasionally by negotiation with F2F salespeople. The products purchased tend to be at the lower value, commodity defined end of the range. Economic considerations dictate that over-reliance on the F2F channel here is unprofitable. Xerox will satisfy demand in these sectors primarily through lower cost channels – either directly through TeleSales and Ebusiness, or indirectly through Retailers, VARs etc. This is the GMO business model.

Diagram 7.1 – *E:R Target Model for Direct Channels* (hypothetical figures)

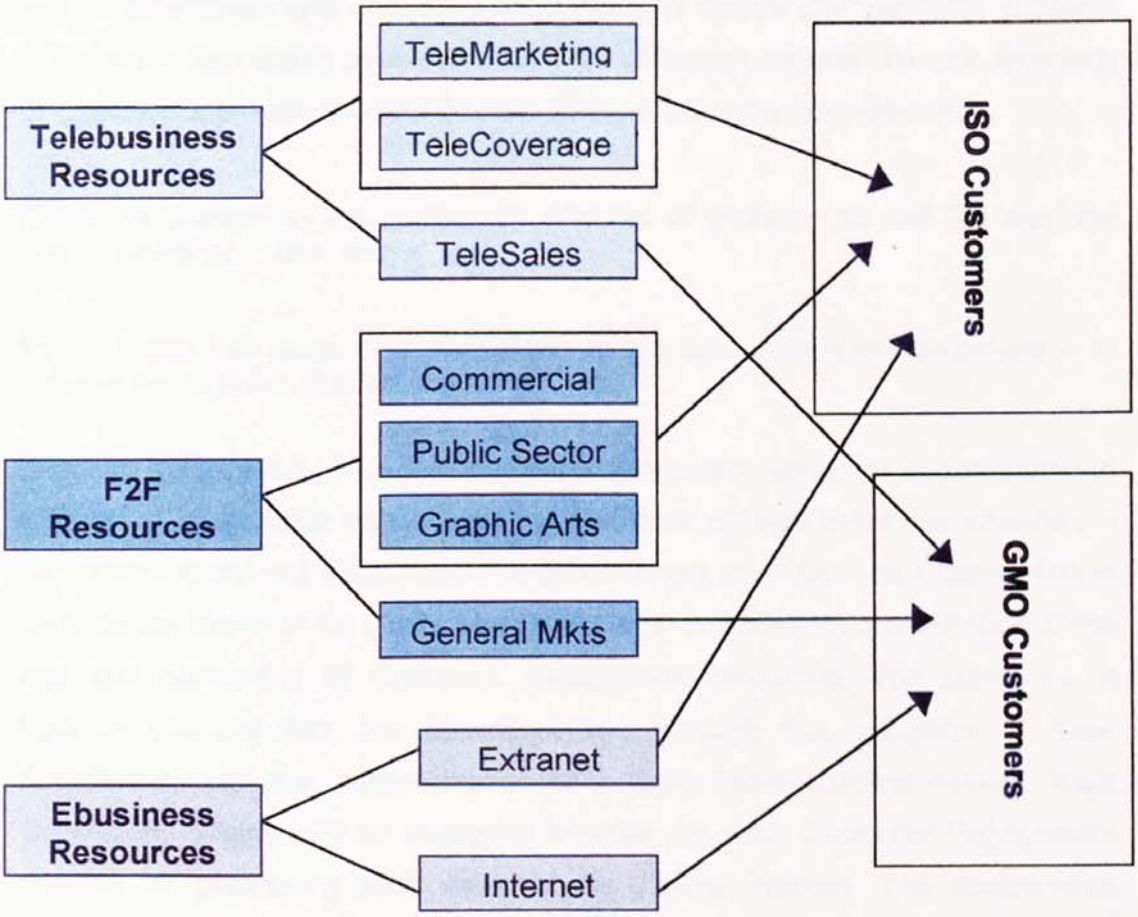


Larger organisations tend to require higher value, complex document solutions and services, or many lower value, commodity products that in sum constitute a

high-value purchase. For the most complex, high business-impact service solutions, F2F expertise is necessary. F2F contact is also usually necessary for new deals involving mid-range applications or large numbers of commodity products. The business model here is Hybrid Selling intensive, and for industry solution sales it remains F2F intensive. This is the ISO business model.

The basic way in which the Xerox direct Customer Engagement channels resources are allocated to each model is shown in Diagram 7.2 below.

Diagram 7.2 – *Two Business Models: ISO and GMO*



In the light of the Xerox experience, it is important for managements to recognise that organising Customer Engagement resources according to a single, generic business model may not be sufficient. For those organisations serving large markets it is important to recognise that inter-segment (and intra-segment) buying behaviour differences exist, and that these differences may mandate the simultaneous use of multiple Business Models.

7. Channel Optimisation requires that as many Selling Process stages as possible be performed through alternate (not F2F) channels, providing that the resulting process is customer oriented and financially viable (4.3.2, 4.3.3, 5.6 / Q2 & Q6)

And:

8. The Selling Process is central to the analysis and understanding of Channel Economics (4.3.2, 4.3.3 / Q2)

Buyer preferences and economic considerations dictate that particular products are more or less suited to sales through the different channels. Xerox's approach to Channel Optimisation – and Optimal Channel Mix – has two elements:

❶ *To be present in the customer's channel of choice – to sell the way the customer wants to buy, and*

❷ *To match the value of a transaction to the cost of channel employed – to achieve appropriate channel economics.*

Expense to Revenue (E:R) considerations dictate that, as far as is acceptable to customers, lower value transactions are managed through lower cost channels – i.e. Telebusiness and Ebusiness. The achievement of an Optimal Channel Mix is an essential theme of the Go To Market strategy, and involves a redefinition of the role and positioning of Customer Engagement resources. The principles of Optimal Channel Mix are operationalised through the discipline of Task Substitution, and the implementation of multiple Hybrid Selling models. Task Substitution begins with an economic analysis, for each Customer Engagement channel, of performing each stage of the Selling Process. The comparative analysis of channel economics requires the existence of a common, activity-based work structure. At Xerox, the common structure is the Selling Process (see also points **16** to **19** below).

9. The Selling Process is specialised by market segment and product group (4.3.2 to 4.3.4.3, 5.3 to 5.5 / Q2)

Prior to Go To Market, the Selling Process was performed in more or less the same way for all products and all customer segments – that is, all seven (or ten)

stages were performed by the F2F channel. The Go To Market strategy involves the radical redesign of how the Selling Process is performed, and this redesign is understood with reference to the concept of process specialisation introduced in Chapter 1 (Malone et al, 1997). Xerox have recognised the heterogeneous nature of buying behaviour across product and customer segments, and are in the process of specialising the Selling Process – through Task Substitution and Hybrid Selling – in line with that variable buying behaviour. Selling Process specialisation is undertaken also with the aim of reducing selling E:R.

For lower value products, and for General Markets segments, the Selling Process is performed via the lower cost, broad reach channels – Telebusiness and Ebusiness. For low and mid-range products, and larger organisations (ISO), the Selling Process is performed via one of the Hybrid Selling models. The Selling Process for complex, high value solutions is performed mainly by the F2F channel.

Importantly, it is not the activity structure of the Selling Process that is redesigned. This form of process redesign changes the ways in which the composite activities are carried out, rather than the activities themselves. Xerox are moving from a situation in which a single Selling Process specialisation exists (F2F performed), to one in which multiple process specialisations co-exist simultaneously. Xerox now operate many *versions* of the generic Selling Process.

The lesson here is that although managements may be confident that a process is 'correct' – that it consists of the appropriate and properly sequenced activities – a single specialisation of that process may be insufficient. Multiple specialisations may be required in order to satisfy variable customer demands. In changing market environments, processes must be continually scrutinised and challenged for cost effectiveness and customer orientation. Furthermore, in process oriented organisations (post- BPR), process redesign may focus more on changes of specialisation, than structure.

10. The Selling Process is both an Operational Process and a Management Process (4.2, 4.6, 6.3.4 / Q1, Q6)

And:

11. In-process measurement is essential to productivity improvement (4.6, 5.7, 6.3.4 / Q6)

The Selling Process is an activity based description of an archetypal sales cycle. It represents the generic structure of how sales work – in both the F2F and Telebusiness channels – gets done. It applies equally to the sales of goods and services. At Xerox the Selling Process also provides the structure through which sales people are managed.

The 'generic' approach to productivity at Xerox is to proceduralise work (define in process terms), to apply technology where possible, and then to drive productivity through process measurement (see also statement **59**). The structuring of work along process lines raises the possibility of taking in-process measures. At Xerox, best practice Sales Management focuses on Selling Process in-process measures.

The structuring of sales work through the Selling Process enables management to measure in-process Key Ratios – ratios of success in progressing one process stage into later stages (e.g. the number of Prospects that are converted into Orders). The measurement of, and management by, these Key Ratios is dependent on the tracking and recording of individual sales as they are progressed through the Selling Process constituent stages.

The alternative to structuring sales work along process lines, and driving productivity through in-process measures, is the 'beat the drum' approach to sales productivity. The latter represents the 'manage by results' approach to sales productivity. Process orientation enables Sales Management 'by process' rather than, or as well as, 'by results'.

12. Because buying behaviour changes over time, continuous process reengineering / specialisation is necessary (3.2, 4.3.2 / Q1 & Q2)

Much of the literature reviewed in Chapter 1 described BPR as a 'one-off' initiative. However, at Xerox, process redesign is a going concern, in which processes are continuously examined for possible improvements. Market environments evolve, and buyer behaviour is changeable. This means that process relevance to customers may decay over time. An important lesson to be

learned from this study is that BPR (and Business Process Specialisation) should be a continuous activity: it does not end following the creation of a process-oriented organisation.

This research was undertaken during a time of radical process redesign/specialisation. Implementation of the major elements of the Go To Market strategy (Intelligent Coverage, Optimal Channel Mix and Salesforce Sectorisation) requires fundamental changes to the ways (by whom, how and when) in which each Selling Process stage is performed. Furthermore, this process specialisation is undertaken in response to changes in buyer behaviour (identified through intensive market research). It is clear that the specific ways in which the Selling Process stages are performed (specialisation) is closely linked to market dynamics and buyer behaviour. This relationship is illustrated in Diagram 7.3 with the 'Selling Process' and 'Market Understanding' boxes interlinked.

7.2.2 Major Findings: Holistic & F2F Sales Productivity at Xerox

13. An F2F intensive business model is ill-suited to a coverage-led Customer Engagement strategy (4.3 to 4.3.4, 5.6, 5.6.1)

The Xerox case shows that a F2F-intensive business model is incompatible with the demands of a coverage-led Customer Engagement strategy. The F2F channel suffers from considerable capacity and market reach limitations. Intelligent Coverage requires the integration of high capacity channels into the business model, and so Telebusiness becomes a channel of great strategic importance. Managements wishing to implement a coverage-led strategy must recognise the limitations of the F2F intensive model, and that the implementation of this kind of Customer Engagement strategy demands significant investment in the development of a Telebusiness channel.

14. F2F productivity is not dependent on 'F2F hours' alone: Increasing F2F hours is not enough (4.3.1, 5.6.1)

The 'traditional' focus of sales force productivity initiatives has been to increase

the volume of F2F hours achievable by the salesperson. The logic guiding these initiatives assumes that the revenue generated by the salesperson increases in proportion with the time spent with prospects. Hence, traditional productivity initiatives have sought to reduce the time salespeople spend on ancillary, administrative tasks. This logic is sound, but is applicable only to the F2F channel in isolation.

Xerox's contemporary 'direct sales force' includes the F2F, Telebusiness and Ebusiness channels. This research has shown that the effectiveness of each channel is to a great extent dependent on the effectiveness of the others. As these 'alternative' channels become commonplace, and more frequently used by customers, is becomes ever more clear that:

15. A Holistic approach to Sales Productivity is required (4.3.1, 5.6.1 / Q6)

At Xerox, F2F productivity is but one element of a holistic sales productivity. The changes signalled by Go To Market will indeed result in salespeople achieving more hours Face to Face with the customer. However, this is not achieved through a simple reduction in administrative duties – rather it results from a fundamental redesign of the ways in which the Selling Process is performed.

Managements are advised that the optimisation of each individual sales channel may bring productivity gains, but that the greater rewards arise from their integration. In cases similar to that of Xerox:

16. The proper focus of Sales Productivity improvement is Channel Integration (4.3 to 4.3.4.3, 4.4, 5.6)

The effective integration of the customer engagement channels is a project of great complexity. Xerox approach this problem through the discipline of Task Substitution, and effective Task Substitution leads to the creation of a Hybrid Selling model of Customer Engagement. This research has shown that the improvement of holistic sales productivity through Task Substitution, Channel Integration and Hybrid Selling is greatly facilitated by the structuring of sales work along process lines.

17. Sales Productivity is improved through Task Substitution and Hybrid Selling (4.3.3, 4.3.4 to 4.3.4.3, 4.4 / Q2 & Q6)

And,

18. The discipline of Task Substitution is made possible by the structuring of Customer Engagement work along process lines. Process Orientation enables the Task Substitution approach to productivity improvement (4.3.3 to 5.6 / Q2 & Q6)

And also,

19. In Hybrid Selling models, the integration and co-ordination of F2F and Telebusiness work is facilitated by both channels working to the Selling Process structure. Or, The Selling Process provides the necessary common work structure for Hybrid Selling (4.3.4 to 4.3.4.3 / Q2 & Q6)

Task Substitution involves, for each product type and customer segment:

❶ *analysing the Selling Process for the time and cost associated with the fulfilment of each stage,* and then,

❷ *allocating the performance of each stage to the most customer oriented and financially productive channel.*

The discipline of Task Substitution recognises that, for many products and customers, it is neither customer oriented nor financially productive to perform all stages of the Selling Process through the F2F channel. Furthermore, exclusive reliance on the F2F channel is inconsistent with a high capacity, broad reach, coverage-led Customer Engagement strategy. For lower value products, it is both ineffective and inefficient to perform Selling Process stages 1 to 3 (Identify Prospects, Make Initial Call, Qualify Customer Interest) via the F2F channel. It seems that customers would rarely need or desire F2F expertise when purchasing familiar, commodity defined products; and for lower margin products it does not make economic sense to deploy the costly F2F resource in pursuit of such deals. However, for the most complex, tailored, enterprise-wide service solution sales, the potential set of new customers is by definition relatively small. The proper focus for the F2F resource is towards this area. The relative expense

of F2F deployment is acceptable here because these are high value / revenue sale, and margins are maintained.

Task Substitution leads to the Hybrid Selling model of Customer Engagement, and Xerox operate three kinds of Hybrid Selling: TeleMarketing Hybrid, Partnering Hybrid and Fulfilment Hybrid. Each involves the integration and co-ordination of the F2F and Telebusiness channels. Furthermore, the co-ordination of F2F and Telebusiness activity is enabled by a common work structure.

The Selling Process provides the structure through which Task Substitution analysis is made possible. It is possible to measure and gauge the relative effectiveness and efficiency of Customer Engagement work in this way, because that work is performed and managed through the Selling Process. Because sales work is organised by process, it becomes possible to disaggregate the process into its discrete activities, and measure each for time, cost and customer satisfaction. Thus, the structuring of Customer Engagement work along Selling Process lines enables Xerox to operate simultaneously multiple Hybrid selling models and process specialisations.

20. Different Prospecting Models are appropriate for ISO and GMO (4.5 to 4.5.2 / Q1 & Q2)

This research has found that Xerox approach selling in very different ways for these two business models. It is not only the channels (and channel mix) employed that differ in ISO and GMO. The generic Prospecting Model differs in important ways also. Although the Selling Process is constant for ISO and GMO, the ways in which the constituent activities are performed varies. In ISO Xerox operate a 'Whale Hunting' approach to prospecting. The typical ISO Selling Process is highly complex – involving many people from both Xerox and the customer organisation – and lengthy. It involves detailed planning and the management of many kinds of resource. By contrast, the GMO prospecting model is characterised by the 'Salmon Farming' metaphor. Here the Selling Process is performed quickly and much more frequently.

At Xerox, two generic specialisations of the Selling Process now exist. However, these two generic specialisations are applied differently across the customer and product groups that exist in the ISO and GMO sectors (see also point 8 above).

21. Coverage Contracts are prescriptions for F2F Intelligent Coverage (5.6.1, 6.3.1 / Q6)

The Coverage Contract is integral to, and is the means of realising, Xerox's Intelligent Coverage philosophy. The Contract specifies on a monthly basis those customers and non-customers that the F2F salesperson is required to engage – and how – i.e. via F2F or Telephone contact. The Contract guarantees that F2F coverage activity is not 'left to chance' – and plays an important role in ensuring that the F2F resource is targeted at high potential, strategically important prospects, and that F2F people work along process lines. The Coverage Contract process also plays an important role in the collection of intelligent market information.

22. F2F work is changing along the dimensions of market positioning, role definition, skills, compensation, technology, structure and culture (4.5 to 4.5.3)

This research has shown that, with the implementation of the Go To Market strategy, the work of F2F people is changing dramatically. At Xerox, the productivity of F2F people is being tackled along many dimensions. First, F2F resources are now targeted towards new sales of high value, industry specific document service solutions. The Sectorisation of the Sales force represents a repositioning of the F2F channel in both the market and Xerox's Customer Engagement channel mix. Sectorisation is undertaken in order to form 'a clearer line of sight' to the customer, and the customers on which the F2F resource is focussed are in most cases the largest ISO organisations.

The Xerox F2F role is changing from 'Order Taker' to 'Account Consultant', from 'Box Shifter' to 'Territory MD', and from 'Salmon Farmer' to 'Whale Hunter'. The F2F person will become 'a facilitator of the channels'. The changing role of F2F people means that their requisite skill sets are changing also. There is an increasing requirement for business and industry expertise, as well as product and technical knowledge. Xerox are developing F2F skills through the 'Sales Force Excellence' accreditation programme. The F2F channel changes also extend to the means of employee compensation. This latter change is, in short, from a system of 'paying on target', to one of 'paying for skills'.

F2F people are now supplied with SFA technology (see below) – which, Xerox hope, will lead to improved ways of working, improved process compliance and improved productivity. The geographic structure of the ISO sales force is changed also. ISO CBUs are centralised, whereas GMO CBUs are geographically dispersed. The majority of F2F people now work in one of the ISO Sectors – and are thus distributed from the physical point of control. Finally, and critically, the evidence from this research suggests that the changes summarised above require significant changes to the culture of F2F people. Participants frequently expressed the view that:

23. F2F culture represents a formidable obstacle to the delivery of the changes required by Go To Market (4.3.4.3, 6.4.1 / Q5)

The F2F changes are complex. Managements wishing to create a 'solutions company' in this age of rapid commoditisation must recognise that F2F productivity improvement is a multi-faceted challenge. Each of the elements – market positioning, skills, compensation, technology, structure and culture – must be managed together. Each change complements and reinforces the others. Therefore, again, a holistic approach to F2F productivity is required.

7.2.3 Major Findings: The Telebusiness Channel

24. Three variants of Telebusiness exist: TeleMarketing, TeleCoverage and TeleSales (5.3, 5.4, 5.5 / Q7)

And:

25. Telebusiness variants are distinguished by their performance or non-performance of the Selling Process stages (5.3, 5.4, 5.5 / Q2)

And,

26. TeleMarketing and TeleCoverage leverage F2F and holistic sales productivity (5.3, 5.4, 5.6 / Q6)

Telebusiness is not simply 'selling over the phone'. Xerox have evolved the three Telebusiness variants over a period of five years, and each is appropriate in different business circumstances. TeleMarketing and TeleCoverage are

appropriate to the ISO business model, despite the fact that they appear to add selling expense to the F2F channel. In the former, Selling Process stages one to three are Task Substituted from the F2F channel; in the latter stages one to ten are Task Substituted for low value sales. In both cases the F2F and Telebusiness resources are targeted at the same account: in TeleMarketing the TBC and F2F resources are deployed in series, in TeleCoverage they are deployed simultaneously. The added expense of dual coverage is justified because a) lower value transactions are completed profitably, and b) the F2F resource is leveraged towards higher value, new sales. The net effect is a reduction in selling E:R. TeleSales is an inbound channel, and it is intended to serve the General / SoHo market (GMO).

The TeleMarketing and TeleCoverage variants both require close co-ordination and integration with the F2F channel. The performance and management of both F2F and Telebusiness activity according to the Selling Process facilitates this co-ordination and integration, by providing a common work structure. Thus point **19** is reiterated:

27. The common Selling Process activity structure enables partnership and integration between the Telebusiness and F2F channels (5.6, 5.7)

The Xerox experience in managing the Telebusiness activity suggests that:

28. The centralisation of Telebusiness operations improves process conformity, consistency and productivity (5.7, 6.3.7)

And:

29. Telebusiness productivity is dependent on process orientation (5.7, 6.3.7)

Xerox Telebusiness began with numerous geographically dispersed teams. These teams approached Telebusiness in similar but different ways. Xerox soon learned that Telebusiness work is particularly amenable to proceduralisation and measurement. In the words of one participant, Telebusiness is '100% process'. The centralisation of Telebusiness activity to one site has enabled Xerox to virtually guarantee process conformity and consistency – and has enabled

productivity to be aggressively driven and closely measured. The Xerox experience suggests that a) Telebusiness work should be designed along process lines, and b) centralised TBC operations are likely to be more productive than geographically dispersed operations.

Telebusiness plays a central role in the Intelligent Coverage sales philosophy. The Telebusiness channel is a high capacity, broad reach and relatively low cost channel – its advantages for the implementation of a coverage led Customer Engagement strategy are obvious. As summarised above, Xerox tailor quarterly coverage to individual customers and non-customers from the three available coverage modes: F2F, Telebusiness and Mailers (and possibly email). Where mixed coverage is required there is an obvious need for co-ordination between the F2F and Telebusiness channels. Therefore:

30. The TBC and F2F channel must be partner engaged for Intelligent Coverage (5.6.1, 5.6.2, 6.4.4 / Q7)

At the time of this research the question of whether the TBC should be positioned and targeted as a distinct CBU remained unresolved. However, proponents on both sides of the debate agreed that the requirements of the guiding Intelligent Coverage sales philosophy necessitate close partnership between the channels.

7.2.4 Major Findings: The Ebusiness Channel

31. Internet based Ebusiness is appropriate for the General Market – smaller companies, consumers, and low-end products (5.9)

At this stage in the technology's lifecycle, Xerox believe that the Internet channel is appropriate for, and is an important element in, the General Markets business model (GMO). Xerox recognise that users are unlikely to choose the Internet channel to purchase high value, complex solutions. The channel is relatively new, and cultural barriers provide significant obstacles to the channel's development. This finding suggests that Xerox and consumers currently regard the internet as a media of low richness (c.f. Section 1.10 and Daft & Lengel (1986)) – i.e. appropriate for standard (rather than uncertain or complex) transactions. Nonetheless, there is little doubt that the Internet's role is set to grow as part of

the holistic Customer Engagement mosaic. It has great significance for organisations seeking to reduce selling E:R.

Managements should note that, in the business-to-business sector, cultural barriers to Internet based procurement persist. The channel at this time seems appropriate only for lower complexity/value transactions. It will be interesting to observe whether the internet becomes accepted for more complex transactions as the technology develops – for example with the widespread use of internet based conferencing, embedded video etc. Critical to this, it seems, is whether the perception of the E-channel's richness will change/improve over time.

32. For Internet based Ebusiness, incenting customers to use the channel by price discounting can be problematic (5.9 / Q5)

The Internet is by definition a low cost, broad reach sales channel, and Internet based Ebusiness is attractive to selling organisations because of its advantageous E:R implications. One important lesson to be learned from the Xerox experience with Ebusiness is that price discounting, as an incentive for customers to purchase via the Internet, is problematic. Corporate customers naturally expect to receive favourable pricing terms on large purchases of lower value items (smaller copiers, printers and multifunction devices). Xerox believe that Internet based Ebusiness is appropriate, at this time, for General Markets / SoHo customers, and these customers are likely to purchase single items in the lower value product category. Xerox (and Corporate customers) recognise Internet pricing policy should not lead to a situation in which individual consumers are able to procure at an equal or lower price that Corporate customers.

Internet pricing is, for established, business-to-business organisations, a difficult problem. The same may not be true for business-to-consumer, or start-up organisations.

33. For Internet based Ebusiness, Product decisions can be problematic – channel conflict is a significant barrier to development (5.9 / Q5)

This research has shown that the decision as to which products are suitable for sale on-line is a difficult one. On the one hand it seems clear that, at this stage of the channel's development, it is the smaller, less complex products that are

suitable for sale on-line. However, as with the Pricing problem above, established relationships may prove a barrier to rapid Internet channel development. The products thought suitable for sale on-line to the General Market were at the time of this research sold exclusively through indirect channels, with which Xerox has contractual agreements. Internet development plans must take account of the possible channel conflicts that may result from implementation.

34. Extranet based Ebusiness is appropriate for larger, ISO companies (5.10)

Extranet implementation at Xerox involves the forming of long term, strategic partnerships. Extranet implementation is a joint project that results in mutual advantages, but the potential set of customers for which the channel is appropriate is relatively small. Business-to-Business Extranet implementation is akin to the development of a supply chain IOS (see Chapter 1). It seems at this stage that the Extranet concept is a form of Electronic Hierarchy, or Value Added Partnership (Johnston & Lawrence, 1988). The benefits of Electronic Hierarchies described through the research in Chapter 1 apply here. These include a reduction in the costs of co-ordination (for Xerox a reduction in E:R), and low transaction uncertainty (Towill, 1997). This research has shown that the Extranet is an important, strategically significant channel in the ISO business model.

35. The Extranet can be used as a fulfilment channel (like TeleCoverage) (5.10)

And...

36. Extranets do not replace, but rather enhance the F2F role (5.10)

Furthermore,

37. Extranets have positive implications for customer satisfaction and loyalty (5.10 / Q4)

And,
38. The Extranet can be used as an Intelligent Marketing tool (5.10 / Q4)

The Extranet channel is particularly useful for those organisations wishing to implement Hybrid Selling models similar to those in operation at Xerox. The

channel offers the possibility of reducing still further the costs of operating the (Inbound) Fulfilment Hybrid model. Xerox research suggested that customers do not see the Extranet as a replacement for the F2F channel. Instead, it appears that the channel is a useful vehicle to the development of customer-supplier relationships, and the improvement of customer loyalty. Furthermore, this research has shown that the Extranet can also be used as a tool for Intelligent Marketing or Intelligent Coverage. The Extranet site can be used to stimulate interest in new offerings, and to capture valuable customer intelligence – e.g. Email addresses. There then exists the possibility of adding Email to the potential set of coverage modes.

7.2.5 Major Findings: IT in Customer Engagement at Xerox – MDB & SFA

39. The Market Database (MDB) is central to, and necessary for, the realisation of the Intelligent Coverage sales philosophy (6.3.1 to 6.3.7)

And:

40. Both Market Management and Sales Activity Management capabilities are required (4.6, 6.2, 6.3.1 to 6.3.7)

And:

41. The greater Database benefits accrue from the mapping and coding of the entire marketplace – complete MDB coding at the DMU level is required (6.3.1, 6.3.2, 6.3.7)

And:

42. The MDB is a tool for knowledge based selling (6.3.1, 6.3.3, 6.3.7 / Q3)

And, in sum:

43. The MDB is the foundation on which the Sales Model is built – it is integral to Market Understanding, and the cost-effective, 'intelligent'

deployment of Customer Engagement resources (Market Management) (6.2 to 6.3.7, but see 6.3.7 / Q3 & Q4)

At Xerox, the MDB is integral to the very fabric of Customer Engagement operations. It represents the start point and end point for all Customer Engagement activity. This research has shown that much of the customer engagement activities performed by Xerox are simply not possible without the MDB.

The Intelligent Coverage philosophy is premised on a sophisticated understanding of customer buyer behaviour, and a recognition that buying behaviour varies across customer segments and product groups. The MDB enables this understanding through the mapping and coding of the entire UK market at the DMU (Decision Making Unit) level.

Complete market coding enables the definition of tailored coverage prescriptions for individual customers and non-customers (e.g. F2F Coverage Contracts). This coding also enables the process of Ground Planning – which in turn facilitates the effective definition of F2F territories (with an appropriate mix of existing and non-customers etc), and the allocation of coverage responsibility between the channels. Complete market mapping enables the identification of Study Groups (customer segments) to which marketing campaigns can be customised. In sum, MDB mapping and coding enables the efficient and effective deployment of Customer Engagement resources.

Organisations wishing to implement a coverage-led strategy of Customer Engagement, or to develop similar versions of the MDB Territory Configuration, Early Warning System, Coverage Contract or Campaign Management applications should note that all are dependent on the complete mapping of the UK market. It has taken Xerox eight years to develop the MDB into its current state of sophistication. Investment in the purchase of external lists is continuous, and the coding of every DMU in the market will take much time and effort. It is a complex and costly undertaking, but the rewards are great.

44. Activity tracking – the coding and tracking of individual sales cycles through the stages of the Selling Process – is essential to Selling Process productivity improvement (4.6, 6.3.4, 6.3.6 / Q3, Q4 & Q6)

Xerox Market Management capability is strong, but Sales Activity Management is recognised as a weakness. As explained in point **11** above, the taking of in-process measures is central to the improvement of Selling Process productivity. The Lead Tracking and Prospect Management applications require the coding of individual cycles according to the Selling Process stages. This coding allows the gathering and management of in-process measures. However, at Xerox this tracking is inconsistent, and process measurement is not universally pursued. Sales Managers that make use of the MDB's Selling Process coding and tracking facilities were clear that the practice is beneficial for the structuring of business review meetings with F2F people (discussions are focussed on the stages that individual sales are currently at, how the process will be progressed etc), and for the accurate forecasting of revenue performance (Outlooking). The lesson here for Database developers is that systems should include both Market Management and Sales Activity Tracking capabilities. Each capability type is important, but the grater benefits arise from their integration.

45. Intelligent Coverage, and effective Customer Engagement depends on MDB content quality (6.3.1 to 6.3.7 / Q5)

Therefore:

46. Customer Engagement activities should feature closed-loop MDB update processes. Closed-loop update processes improve MDB content quality (6.3.5, 6.3.6, 6.3.7)

The Xerox experience suggests that database content quality is an ongoing, and formidable problem. Data content quality improvement, and the prevention of deterioration is a significant issue for any database using organisation (i.e. virtually all organisations). Effective Call Rate, and the generation of quality leads through Campaign TeleMarketing are both directly related to MDB content quality. The link between business results and data quality is undisputed.

Most Xerox customer engagement activities begin with some output from, or interrogation of, the MDB. The lesson from this research is that process architects should design the processes that structure Customer Engagement activities such that they conclude with an 'update MDB' stage. This research found that in the TBC these closed-loop processes work well, and that value is continually added to the MDB as a result. MDB updates by the F2F force were found to be less consistent – and the recent SFA initiatives seek to remedy this problem (see below).

47. The continuous improvement of MDB data quality requires a long term outlook on the part of users. Short-termism is a disincentive, and is detrimental to MDB maintenance (6.3.1 to 6.3.7, particularly 6.3.3 / Q5)

As the above suggested, close-loop update processes add-value continuously to the MDB, and serve to maintain and improve content quality. In the TBC these processes are performed continuously, and MDB input occurs in 'real time'. Participants to this research suggested that one reason for the lack of MDB input, on the part of F2F salespeople, was that they did not feel 'ownership' for, or recognise the value of, information that referred to events in the medium term, or events that that were not 'on their patch'. Participants suggested that the current Xerox F2F culture is short-term oriented (although concerted efforts are underway to modify this culture – see points **22** and **23** above) – and that this short-termism is detrimental to the continuous collection of intelligent market data. There is a requirement for MDB input processes to become routinised, and hence culturally embedded.

48. Effective Hybrid selling, TeleMarketing and TeleCoverage requires dual access to the MDB by the Telebusiness and F2F channels (6.3.7, 6.4.4)

Hybrid Selling, TeleMarketing and TeleCoverage are made possible through the common structuring of work along Selling Process lines (as noted in statements **18, 19** & **27** above). The Selling Process provides the necessary common language for F2F and Telebusiness integration. The Xerox case suggests that a common information resource is also required for the effective performance and integration of these channels. The MDB provides the source of common knowledge about customers that is critical to effective customer engagements.

Managements wishing to implement any of the dual coverage models observed in the Xerox case should ensure that easy access to the MDB is possible and desirable on the part of both F2F and Telebusiness people.

49. The use of mobile laptops can improve sales productivity, but greater SFA benefits accrue from the remote mobilisation of company systems (6.4 to 6.4.5 / Q3 & Q4)

Participants to this research were clear that although access to laptops can in itself have productivity benefits, the greater benefits accrue through the F2F person's ability to interrogate Xerox systems remotely. Benefits in the former category include a reduction in necessary 'windshield time' (and hence more F2F hours), improved responsiveness to customer demands (through remote query handling and communication), improved team communication, timely proposal generation, improved corporate credibility / image and Selling Process compression. The latter, more significant advantages, include the possibility of improved MDB content and quality (and hence increased effective call rate and quality leads through Campaign Telemarketing), acceleration (or automation) of the Coverage Contract and Leads Tracking process, the elimination of Account Management process breakages, improved Hybrid Selling and Coverage effectiveness and, again, Selling Process compression.

Managements should be aware that although supplying salespeople with laptops may lead to significant productivity improvements, the real challenge of SFA is to enable salespeople to make remote, mobile use of in-house (previously 'static') systems.

50. Effective SFA involves changing the ways in which Selling Process *stages* are performed – but not the structure of Selling Process itself (6.4, 6.5 / Q2)

And...

51. SFA may improve process compliance by F2F people (6.4.1, 6.4.3, 6.5 / Q4)

At Xerox, SFA enables the performance of Selling Process activities in different ways, but the activity structure of the process itself remains constant. It represents another example of process specialisation redesign.

Successful SFA is an example of improving process efficiency through the application of IT. As described above (and below in point **59**) the effective application of IT to a business area requires the precedent existence of a well-designed work process. The Xerox maxim seems to be: process work, apply IT, then measure. One objective of Xerox SFA initiatives has been to improve process compliance on the part of F2F people. F2F sales is an area of work characterised by variability rather than repetition – each sale, and each customer's characteristics are different. However, Xerox management believe that the generic Selling Process is appropriate to all selling, and that F2F people should follow the process in all cases. Work-by-process enables the taking of in-process measures, and hence the improved management of productivity.

Greater use of the Leads Tracking and Sales Activity Management MDB facilities may contribute to increased process compliance on the part of F2F people. The MDB facilities require individual sales cycles to be logged as they are progressed through the Selling Process stages, and the process tracking of sales cycles enables the development and management of in-process measures (see also **11** above).

52. SFA leads to Selling Process compression / acceleration (6.4, 6.4.2, 6.4.3, 6.5 / Q4)

The Xerox experience with SFA suggests that major productivity benefits may accrue from the effective compression / acceleration of the Selling Process performance. That is, the time required to complete the requisite activities may be reduced. The use of virtual demonstrations, and the ability to interrogate Xerox systems remotely enable this possibility. This Selling Process compression is the result of access to timely information in the F2F opportunity.

53. Major SFA benefits arise from access to timely information in the F2F opportunity (6.4, 6.4.2, 6.4.3, 6.5 / Q4)

But...

54. Infrastructure problems remain for effective use of localised MDB in the F2F opportunity (6.4.3, 6.5 / Q5)

The Xerox case suggests that SFA can improve the effectiveness of salespeople in the F2F opportunity. This improved effectiveness results in part from the ability to retrieve information from remote systems, and to make use of it whilst with the (potential) customer, without having to suspend negotiations. However, the full benefits of remote system interrogation will not be reaped until infrastructure (e.g. bandwidth) capabilities are improved.

55. SFA has positive implications for customers' perception of Xerox and F2F people – F2F people must 'walk the talk' (6.4.3 / Q4)

Xerox are in the process or entering and competing in the high-tech digital market, and F2F people are now expected to deal more than ever with IT personnel. Participants to this research repeatedly argued that Xerox's corporate image is influenced by the use or non-use of modern IT and electronic communication channels by F2F people. It is important for Xerox, as a vendor of leading edge digital solutions, to be represented in the field by IT literate people. This research suggests that the 'credibility' of Xerox F2F people is enhanced with the implementation of SFA. Conversely, a reluctance to embrace new technology may have a detrimental impact on Xerox's corporate image. Without SFA, as one participant surmised: "...they see us as a bit of a dinosaur."

56. SFA benefits will take time to accrue (6.4.3, 6.4.4, 6.5)

And,

57. Facilities strategy is an important consideration in SFA initiatives (6.4.3, 6.4.5 / Q7)

Research participants were clear some of the benefits of SFA implementation would take a considerable time to develop. In particular, the improved collection of intelligent market data, and improved MDB content quality were not expected to happen 'over night'. It seems clear that there will be variability of enthusiasm for the initiative, and that cultural barriers must be overcome. Facilities strategy plays an important role in persuading F2F people to make effective use of the laptop

and remote system applications. Managements must be aware that simply giving salespeople SFA tools will not automatically result in universal use. The productivity benefits associated with SFA will take time to accrue: SFA is a long-term project.

58. SFA initiatives should be based initially on existing systems (6.4)

Xerox have attempted SFA in the past, and have been unsuccessful. Participants believed that the failure of previous initiatives was due in part to the concurrent implementation of mobile computing and new software systems. The problems of learning to use the new software system obscured the distinct benefits of mobile laptop use. The Xerox case suggests that SFA should initially be based on existing, familiar systems.

59. The generic approach to IT enabled productivity improvement should be: Process work, apply Technology, then 'measure the hell out of it' (5.7, 6.4.1 / Q6)

At Xerox there is a clear belief that the effective application of IT to a business area requires the precedent existence of a sound process structure. Time and again participants suggested that the primary focus of performance improvement should be the underlying process structure of work. At Xerox, the generic approach to productivity improvement is to: a) examine and if necessary redesigning the underlying processes, then b) consider how process efficiency and effectiveness could be improved through the application of technology, and c) collect frequently, and manage by, in-process measures.

The Xerox approach is resonant with Hammer's (1990) warning that IT application too often results in the automation of outdated processes. This research reinforces Hammer's message, and suggests that it is still relevant a decade since publication.

60. IT is central to Customer Engagement (Chapter 6 / Q3)

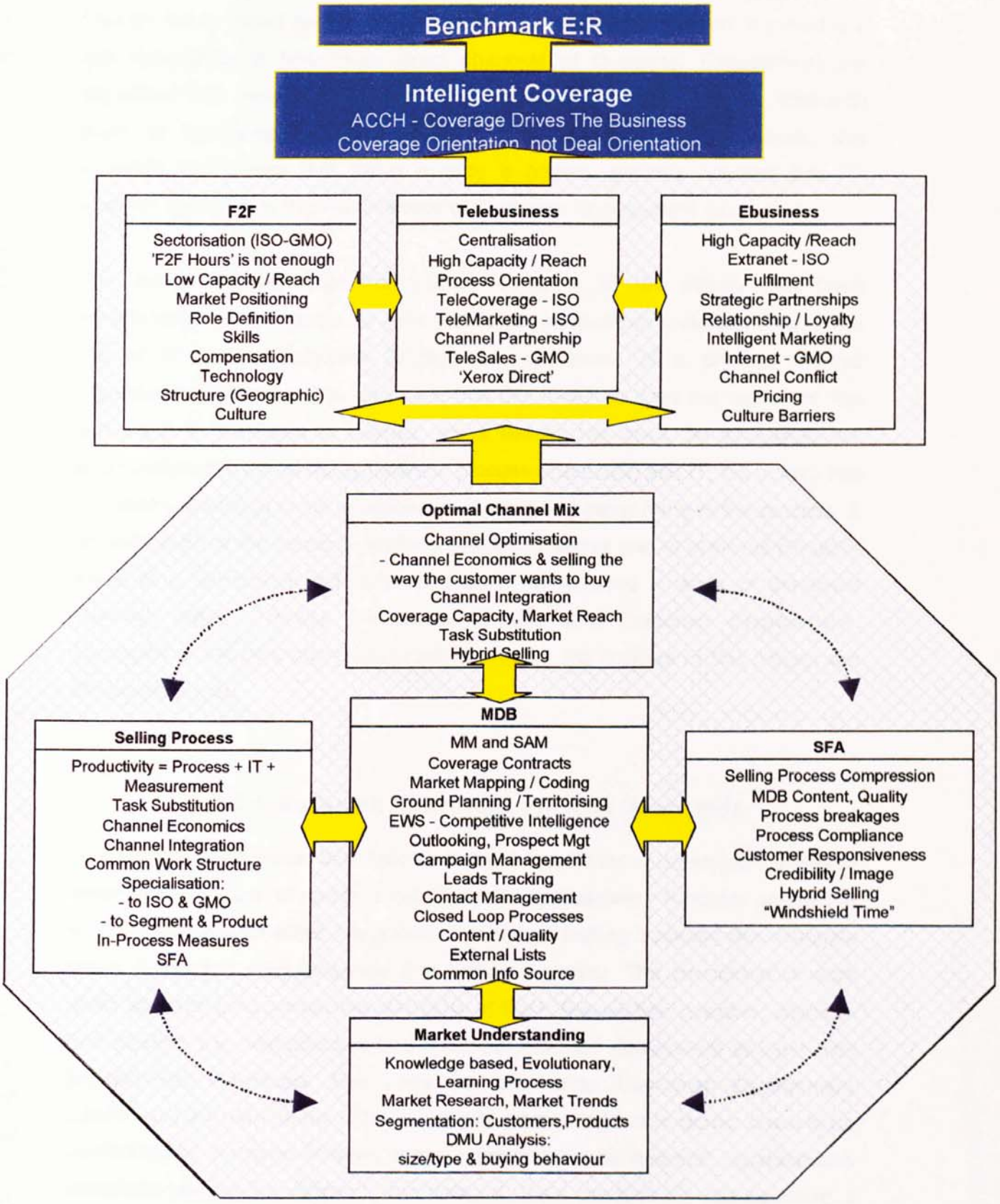
Implementation of Go To Market strategy is, in terms of the research reviewed in Chapter 1, an example of process redesign on a very grand scale. It in fact involves a redefinition of Xerox's industry positioning, and involves a broadening

of market scope – in terms of the channels to market employed, and the customer segments served. The Go To Market changes could therefore be classed as an example of Venkatraman's (1994) 'Business Network Redesign'. Furthermore, as the BNR literature would suggest, the role of IT – particularly Xerox's MDB – is central to Xerox's changing Customer Engagement activities.

This finding is evidenced throughout Chapter 6, which shows that the majority of Xerox Customer Engagement activity depends for its effectiveness on MDB capabilities. Chapter 6 also shows that the current SFA initiative involves much more than simply distributing laptops to the F2F salesforce. It is envisioned that the current SFA initiative will result in significant Selling Process specialisation / redesign. Furthermore, the implications of SFA are not limited to the F2F channel alone. In the view of Xerox participants, SFA will have positive implications for channel integration and optimisation – with improved communication and co-ordination between F2F and Telebusiness work identified as one potential result of implementation. It is clear that both MDB and SFA are essential in the delivery of the Go To Market strategic objectives.

The centrality of IT in Customer Engagement is illustrated in Diagram 7.3 – presented overleaf – with the MDB element occupying the central location. To reiterate, Diagram 7.3 summarises the findings of this research, and represents a model of IT-enabled Customer Engagement productivity, which is based on the practices the researcher observed at Xerox.

Diagram 7.3 – *A Model of IT-Enabled Customer Engagement Productivity*



7.3 Implications for Further Research Directions

This project is based on the in depth-study of a single organisation. It provides a rich description of how three direct channels of Customer Engagement are organised and managed. The use of IT in those channels, and the approach taken to improving their productivity is also described. To summarise, this research has shown that Xerox employ a holistic, process oriented and IT-enabled approach to the improvement of Customer Engagement productivity.

The author believes that the primary objective of the inquiry has been satisfactorily met – namely, to gain and relate an in-depth understanding of the use of IT in the Customer Engagement operations of a process-oriented organisation. However, it is also clear that this research does not represent 'the last word' in the fields of interest. As is usually the case, by increasing our understanding of the interplay between process-orientation and IT, the inquiry has provided answers to some questions, but has raised many more in the process. A consideration of the research findings presented above and in previous chapters leads to a recognition that further research is required in each of the initial question areas: Process orientation, IT use and Customer Engagement. Examples of the new study directions implied by the findings of this project are introduced below.

7.3.1 Research Directions: Process Orientation

This research has shown that Xerox's process orientation is central to the way in which the problem of sales productivity is approached. Process orientation enables effective Channel Integration and Hybrid Selling because the channels share a common work language (the Selling Process). The structuring of work along process lines makes the discipline of Task Substitution possible, which in turn enables the cost effective and customer oriented deployment of Customer Engagement resources. The case for organising Customer Engagement operations (and other areas of business) along process lines is strong. It would be interesting to discover whether other holistic, process oriented organisations undertake similar or different initiatives in their productivity management / improvement efforts. Admittedly, the potential set of appropriate organisations for this kind of research is, as yet, small: few holistic, process-oriented organisations

exist. Nonetheless, BPR remains popular, and process orientation is an emerging organisational form. An understanding of how existing process-oriented organisations manage Customer Engagement processes (or any area of business), and the definition of best practice, is clearly of value.

Numerous specialisations of the Xerox Selling Process exist. These specialisations vary according to which channel performs the Selling Process constituent stages, and the specialisations are tailored to customer and product segments. The focus of process redesign at Xerox seems to be on tailoring, rather than changing structures. And, because of the changing market environment, continuous process specialisation redesign / improvement is necessary. Again, research into process specialisation by other process oriented organisations seems a valuable pursuit.

7.3.2 Research Directions: The Direct Channels of Customer Engagement

This research has shown that the F2F channel, and the work of F2F people, is changing in multi-faceted, and fundamental ways at Xerox. The work of F2F people is changing in terms of market positioning, role definition, requisite skills, method of compensation, technologies used, geographical structure and culture. Xerox F2F people are beginning to perform 'a new kind of selling', and the sales model in use is being redesigned fundamentally and holistically. Part of the reason that such radical redesign is necessary is that Xerox now compete in an industry characterised by the rapid commoditisation of offerings. To maintain margins and profitability, the emphasis is shifting from box sales to solution sales.

In light of the Xerox experience, an interesting group of questions arise. First, research could investigate whether the F2F model changes seen at Xerox are specific to, or appropriate only for, the IT industry. Certainly there is a high prevalence of firms describing themselves as the 'solutions provider' of choice – but how often does the sales model in use reflect the tag? To which industries is the 'Whale Hunting' model appropriate, and where is it not? Furthermore, is it appropriate, or necessary, to match and redesign the sales model in use to reflect product and industry lifecycle progress? Here, the underlying question seems to

be: is there a relationship between sales model design and industry characteristics? At Xerox the answer to this question seems to be 'yes', but a typology of possible sales models, and advice as to their appropriateness in particular circumstances would certainly be of practical benefit.

With the implementation of a coverage-led strategy, the Telebusiness channel becomes of increasing strategic significance. Hence the requirements for effective Telebusiness Centre management are great. At Xerox, Telebusiness work is highly proceduralised and intensively measured, and TBC people are closely monitored and managed. It is a pressurised environment in which to work, and, consequently, the potential for attrition and burn-out seem high. This research did not focus in any depth on the particular 'man management' styles or techniques employed by TBC managers, but as this channel of Customer Engagement becomes ever more popular, research in this vein could be of great practical use.

The Xerox TBC was, at construction, one of very few UK business-to-business (B2B) oriented operations in existence. The researcher was advised that, as a result, benchmarking data, and advice, was difficult to obtain. The majority of call centres are still business-to-consumer (B2C) focussed. It would be useful to discover the differences that exist (if any) in success factors for B2B and B2C Telebusiness practice. The author suspects that process orientation and the close management of in-process measures are generic requirements for Telebusiness productivity. However, it is possible that the skills required on the part of Telebusiness people vary with the two environments. If B2B Telebusiness is to prove as widespread as its B2C counterpart, research designed to identify any possible similarities and differences in best practice is clearly necessary.

The Ebusiness channel is at Xerox the least developed of those studied in this research. Still, at this time Xerox believe that whilst the Internet Ebusiness variant is best deployed in the General Market (which includes the B2C sector), the Extranet based model is more useful in ISO. The author suggests that Extranet development (e.g., are strategic partnerships necessary? Who is responsible for project initiation and management – IS or others?), use (e.g., by whom, when, how frequently, for what products are Extranets used?) and management (e.g., best practice, process management, co-ordination, etc.) represent interesting and, at this point in time, essential areas of research. As this Chapter has noted,

the Extranet can be viewed as one form of IOS – and the benefits of supply chain IOS implementation seem to apply (as described more fully in Chapter 1). Malone et al (1997) argue that IT, by reducing the costs of co-ordination, leads to the increased use of electronic markets – rather than electronic hierarchies – as the preferred mode of supply chain organisation. However, Extranets represent a form of electronic hierarchy. Research measuring Extranet prevalence, and describing more fully the role that Extranets play in contemporary Supply Chain Management is required.

Extranet (and Internet) implementation and use has the effect of eliminating (or Task Substituting to the customer) Selling Process stages one to seven. It appears that the products listed on the Extranet or Internet site are no longer 'sold' by Xerox – although of course interest is stimulated, and demand created by marketing campaigns – but are instead 'bought' as and when required by customers. Hewitt (1999) argues that a welcome trend is underway towards the replacement of supply chain (and Supply Chain Management) with 'demand pipeline' (and Demand Pipeline Management) as the conceptual model informing the management of materials flows throughout a value system. Hewitt suggests that the 'supply chain' concept is becoming outmoded in this age of 'customer obsession', and that contemporary IT systems enable the creation of actual-demand driven processes of co-ordination. As a logical consequence of this development, processes in operation at the furthest point downstream (or possibly now upstream) become ever more significant to pipeline performance. The role Extranets play in the creation and management of demand pipelines, and the effect their emergence will have on the structure, relevance and role of the Selling Process is an area worthy of both theoretical and practical investigation.

7.3.3 Research Directions: IT in Customer Engagement

The SFA initiative described in this thesis is new, and its outcomes are uncertain. A number of questions arise from a consideration of the Xerox case. For example, participants suggested that SFA would lead to tangible revenue benefits through the improved collection of customer information and maintenance of data quality. The business benefits of improved data content quality include increased effective call rate, and the generation of quality leads through Campaign TeleMarketing. Simply put, the question then arises: does SFA improve database content quality?

Participants were confident that the SFA initiative would lead to an improved perception (as a credible IT solution provider) of Xerox on the part of customers, and that Xerox could become more responsive to customers as a result of the ability to communicate with customers from remote locations. Revenue benefits were expected to accrue through Selling Process compression, because F2F people would have timely access to information and resources during negotiations with customers. A useful area of further research appears to be the perception of SFA initiatives on the part of customers. Preliminary questions for research include: As mobile computing technology becomes commonplace, will the 'credibility' advantages persist? And: Have selling organisations that use SFA become more responsive in the eyes of customers?

7.4 "A Race With No End"

It is evident that, following the present research, many further avenues of research exist. A sample of these are summarised above. The last area of further research to be suggested is perhaps the most obvious – it appears that continued exploration of the Xerox case itself is required. Xerox were, at the time of this research, embarked on a path of fundamental and complex change. Implementation of the Go To Market strategy was in-progress, but not yet complete. Whether the strategy will deliver its objectives is as yet unknown – but the designs and direction are clear. Still, the simple question remains: will it work? Many important lessons are learned through reflection and with the benefit of hindsight. A re-visiting of the Xerox site, post-2001, would provide an opportunity to answer questions similar to the following: at Xerox... How was such complex, far-reaching change managed? How were culture barriers overcome? Did SFA lead to increased process compliance by F2F people? How were Internet based Ebusiness channel conflict problems resolved? Does Hybrid Selling increase sales productivity? And, finally – Does Intelligent Coverage work?

A previous CEO of Xerox, David Kearns, once famously described Xerox's TQM and BPR initiatives as "a race with no end." The continuing study of Xerox performance in that race will potentially reveal further insights into what being a holistic, process-oriented enterprise really means.

Appendix I : List of Acronyms

ACCH	Awareness, Coverage, Consideration, Hit Rate
ASAP	Analytic Systems Automatic Purchasing
ATM	Automated Transaction Machine
AU	Aston University
BNR	Business Network Redesign
BPM	Business Process Management
BPCM	Business Process Change Management
BPR	Business Process Reengineering/Redesign
BSR	Business Scope Redefinition
BT	British Telecommunications
CAD	Computer Aided Design
CASE	Computer Aided Simultaneous Engineering
CBU	Customer Business Unit
CCSS	Concessionaire
CD ROM	Compact Disk, Read Only Memory
CEO	Chief Executive Officer
CR	Corporate Reseller
CRD	Central Reprographics Department
CS	Customer Services (Core Process)
CSS	Customer Support Specialist
DMU	Decision Making Unit
DPM	Demand Pipeline Management
EDI	Electronic Data Interchange
E:R	Expense to Revenue (ratio)
ESRC	Economic and Social Research Council

EWS	Early Warning System
F2F	Face To Face
GE	General Electric
GMO	General Markets Operations
HP	Hewlett Packard
IBM	International Business Machines
IOS	Inter-Organisational System/s
ISC	Integrated Supply Chain (Core Process)
ISO	Industry Solutions Operations
IM&L	Inventory Management and Logistics
IT	Information Technology
JIT	Just In Time
MBA	Master of Business Administration
MD	Managing Director
MDB	Market Data Base
MFR	Manage For Results (Core Process)
MIF	Machine/s In Field
MM	Market Management
MTC	Market To Collection (Core Process)
NUD*IST	Non-numerical Unstructured Data Indexing Searching and Theorising
ODP	Office Document Products
PC	Personal Computer
PSG	Production Solutions Group
ROMI	Return On Marketing Investment
SAM	Sales Activity Management
SAP	Systems Applications and Products in data processing

SCM	Supply Chain Management
SFA	Sales Force Automation
SI	Systems Integrator
SOHO	Small Office, Home Office
SPOC	Single Point Of Contact
SWOT	Strengths, Weaknesses, Opportunities, Threats
TBC	Telebusiness Centre
TQM	Total Quality Management
TTM	Time To Market (Core Process)
UK	United Kingdom
US, USA	United States of America
VAP	Value Added Partnership
VAR	Value Added Reseller/Retailer
WWW	World Wide Web
XBA	Xerox Business Architecture (a.k.a. XBPA)
XBPA	Xerox Business Process Architecture (a.k.a. XBA)
XBS	Xerox Business Services
XMM	Xerox Management Model
XTC	Xerox Territory Configurator

Appendix II : NUD*IST Data Analysis Coding Scheme

- Introductions

- Go To Market
  - ACCH
  - Benchmarking
  - BPR
  - Change Problems
  - Channel & Product
  - Channel Balance
  - Channel Economics
  - Cisco
  - Coverage Capacity
  - Coverage Mix
  - Customer & Channel
  - Customer Control
  - Customer Focus
  - Dell
  - Industry Focus
  - Intelligent Coverage
  - Market Research
  - Optimal Channel Mix
  - Revenue / Profit / Costs
  - Why Process Orientation?
  - Xerox Business Models
  - Xerox Changing Business
  - Xerox Culture
  - Xerox History
  - Xerox Quality
  - Xerox Reputation
  - Xerox Segmentation

- Process Orientation
  - Process & Planning Triangle
  - Process Automation
  - Process Breakages
  - Process Changes
  - Process Problems
  - Process Standardisation
  - Process Training
  - Process Types
  - Core Processes
  - Business Processe

- Selling Process
  - Selling Process & Forecasting
  - Selling Process & Channel
  - Selling Process & Complexity
  - Selling Process & Compression
  - Selling Process & Culture
  - Selling Process & Customer Type
  - Selling Process & Ebusiness
  - Selling Process & F2F Selling
  - Selling Process & History
  - Selling Process & IT
  - Selling Process & Management
  - Selling Process & MDB
  - Selling Process & Measurements
  - Selling Process & Policy Deployment
  - Selling Process & Product Type
  - Selling Process & Telebusiness
  - Selling Process & Tracking
  - Selling Process Descriptions
  - Selling Process Deviation
  - Selling Process Stages
  - Selling Process Variables
  - Selling Ratios & Measurements
  - Selling within Selling Process
  - What is Selling?
  - XSM

- IT
  - IT & Channel
  - IT & Culture
  - IT & Customers
  - IT & Image
  - IT & Processes
  - IT & Productivity
  - IT & Structure
  - IT & Teamwork
  - IT & Telebusiness
  - IT Enabler
  - IT Fragmented
  - Technology Limitations
  - Technology Trends
  - MDB & Xcalibur Descriptions
  - MDB Benefits & Uses
  - MDB Applications
  - MDB & SFA
  - MDB History
  - SFA & Reorganisation
  - SFA Definitions
  - SFA Problems
  - SFA & SAP
  - Laptop Pilot
  - Laptops
  - Legacy Systems
  - Office Moves
  - Timely Information
  - SAP Definitions
  - Remote Working
  - Centralised Systems
  - Data Quality
  - Closed Loop Processes

- F2F Productivity
  - Holistic View
  - Hybrid Selling
  - Task Substitution
  - Sales Force Excellence
  - Sales Force Structure
  - Sales Models
  - Salespeople Roles
  - Buying Behaviour
  - Buying Process
  - DMUs
  - TeleMarketing Hybrid
  - Partnering Hybrid
  - Fulfillment Hybrid
  - In-process measures
  - Ratios
  - SCOTSMAN
  - Sector Differences

- Telebusiness
  - Centralisation
  - Channel or Enabler
  - Inside v Outside Sales
  - Telebusiness & Intelligent Coverage
  - Telebusiness History
  - TeleCoverage
  - TeleMarketing
  - TeleSales

- Ebusiness
  - Ebusiness & F2F
  - Ebusiness & Go To Market
  - Ebusiness Content
  - Ebusiness Decisions
  - Ebusiness Pricing
  - Ebusiness Problems
  - Extranets
  - Intelligent Marketing
  - Internet Products
  - Intranets

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